Vol. X, No. 2 February, 1934

SOAP

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Insecticide & Disinfectant Section

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SOAP

Reg. U. S. Patent Office

Volume X
Number 2

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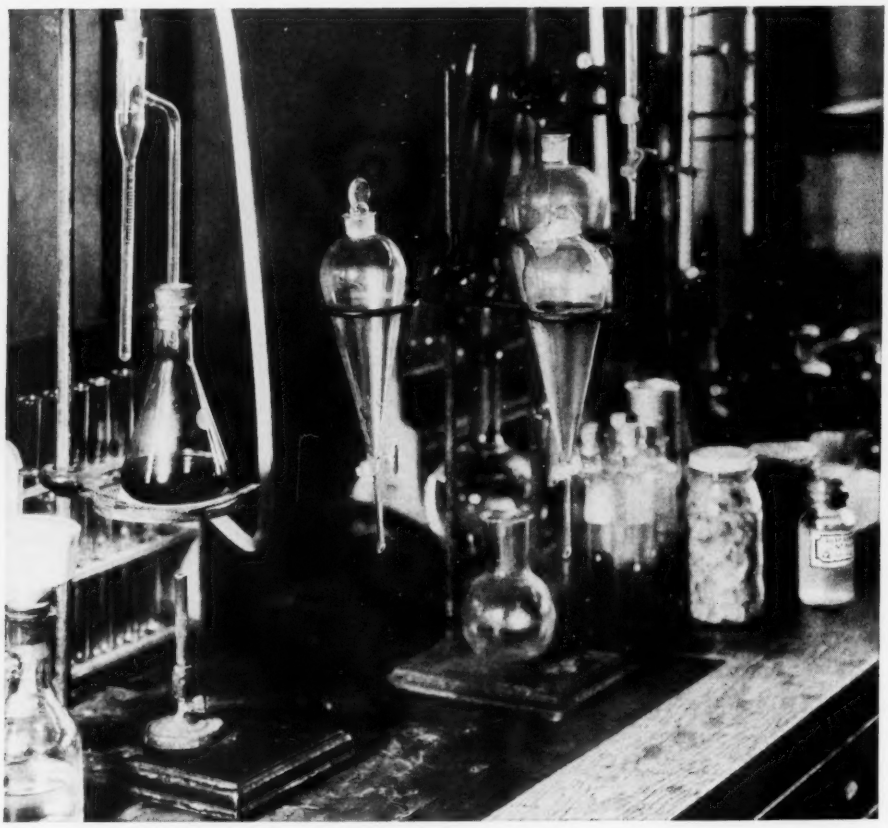
P. Q. SILICATES PRESCRIBED



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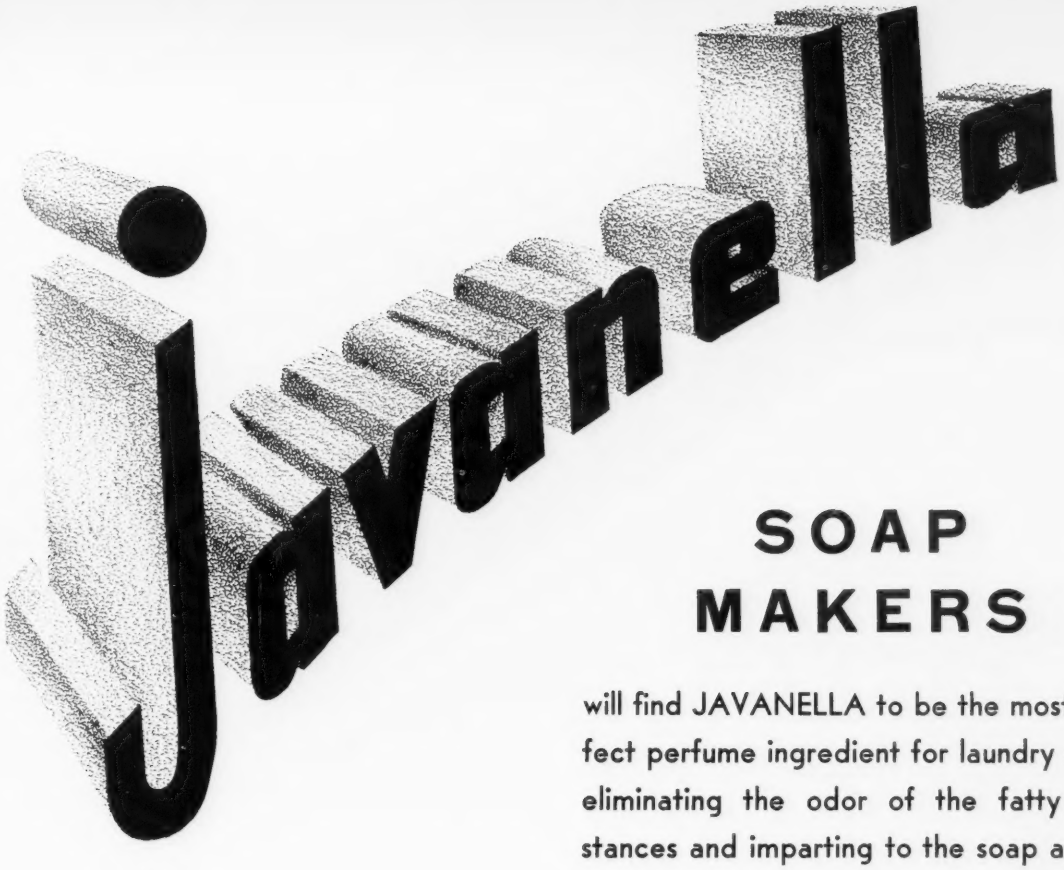

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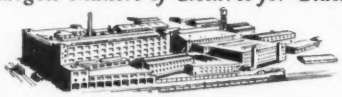
BALTIMORE  MARYLAND

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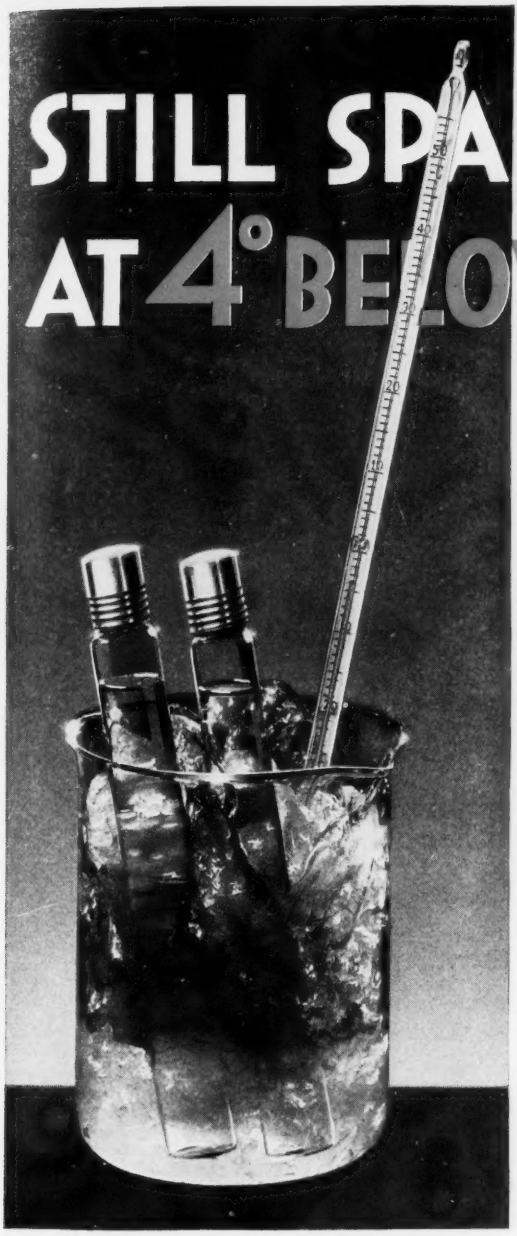

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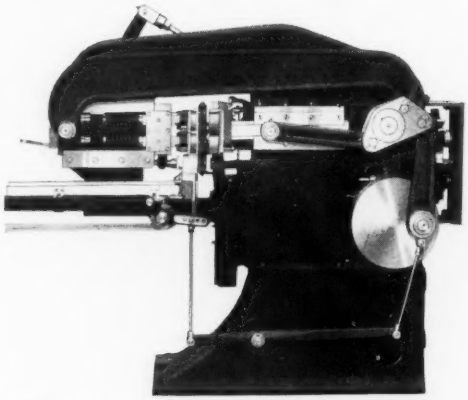

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SOAP

Volume Ten **Number Two**

THE COCONUT OIL EXCISE TAX

OUTSTANDING during the month was the adoption by the Ways and Means Committee of the House of Representatives of the five-cent excise tax on coconut and sesame oils. Although this tax has been up for consideration and was being urged upon the Committee by the dairy, rendering, and cotton oil interests, the soap industry had little idea that it would be considered favorably. The very magnitude of the tax,—almost the equivalent of an embargo on coconut oil at the soap kettle,—was held to insure its defeat or drastic modification. The consternation of the soapers was heightened when a subsequent move in committee to reconsider was voted down. As it now stands, the tax may pass the House, aided and abetted by the votes of Republican members who quite frankly see an opportunity to embarass the Administration. Even though the tax is said to be strongly opposed by leaders of the Administration its proponents are intent in their purpose and hope to extend the principle to other imported oils, notably palm oil. They refuse to compromise by making the tax effective on edible oils only.

The effects of a five-cent tax on all coconut oil need no rehearsing here. Every soap maker, large or small, is only too familiar with what would be the results. The use of coconut oil, today comprising a quarter of all soap fats, would be reduced to a minimum. Certain types of soaps would have to continue to use it irrespective of price if they were to hold their market. The lauric acid derivatives, now attracting attention as soap substitutes, would be just about put out of the picture. The hard water soaps so much fancied in the hard water districts of the middle west would probably have to go by the board. The price of ordinary liquid toilet soap would have to be advanced sharply, or a turn to palm oil, olive oil, and other materials would have to come. In time, unquestionably the soap industry would adapt itself to the use of other oils in place of coconut, but in the meantime, there would be a shifting about in the oil and fat markets of the world which would not be likely to favor the American soaper. The opportunities in the American market for the foreign soap manufacturer would be multiplied many fold.

We have been told that the coconut oil tax is in a measure something akin to revenge against the Philippines for letting the Hawes-Cutting Independence Law die. We have been told also that the soap industry uses too much coconut oil anyway, and that it could soon learn to get along without it. Be that as it may, we still believe that this tax is one of the most cold-blooded attempts to kill off competition at one stroke which we have yet witnessed. That the American renderer is entitled to adequate protection so that he can

make a decent profit is granted, but he is certainly not entitled to, or do we believe expects, a tax which in effect is an embargo against a competing product. As for the dairy interests, we beg to point out that their paid organizers have been squawking about one thing or another in Washington for twenty years, and would probably continue to squawk if butter were a dollar a pound.

The fight against the coconut oil tax, if and when it gets by the House in present form, will center in the Senate, especially among the members of the Senate Finance Committee. That will be the place for soapers and soap consumers to concentrate their opposition, for it is there that this piece of wild-cat legislation,—and it is that in every sense,—can be killed, or modified to apply only to edible oils.

—o—

IN a recent survey to determine the effects of hard water on soap consumption, it was found that in one district with a high degree of hardness the annual per capita consumption of soap was almost fifty pounds. In another district with very soft water, the per capita consumption was reported as twenty-nine pounds. These figures are interesting in the light of the generally accepted per capita soap consumption for the entire United States of twenty-five to twenty-six pounds. They would seem to bear out the statement made not long ago by a small soaper on the Pacific Coast. He averred as how there is many a ton of soap made and sold in the United States to which little attention is paid, and which seldom if ever comes to the notice of the industrial census takers.

—o—

A COMPLAINT comes from the superintendent of a small, but well known soap plant, about the handicap he faces daily as the result of antiquated machinery. He finds that he cannot get out the production which his employers require and that he has more frequently recurring difficulties with quality. As a consequence, he is of late repeatedly under fire and accused of "falling down on the job." Not only has the plant equipment been long out of date, but it is now worn beyond the point of anything approaching efficient operation, he states.

Antiquated machinery is bad enough, but when it is worn out as well, high costs and constant interference with production are inevitable. And yet, this is not an uncommon condition in some soap plants today, especially among the smaller firms. Apparently some soap manufacturers believe that plant equipment should be operated until it falls completely to pieces. "Taking it out" on the superintendent for equipment shortcomings seems to be quite the usual thing.

During the past three years, the amount of new equipment installed by the average soap plant has been small. There has been built up a large potential demand for new soap machinery. Those plants which have not replaced their worn-out equipment are bound to find it increasingly difficult to hold their costs down to competitive levels. Placing the blame on the plant personnel will not solve the problem.

—o—

FROM London comes word that six new soap plants are to be built in Russia by the Soviet Government. Reports indicate that by 1937, Soviet industrialists hope to increase the investment in food, soap, textile, leather and allied plant to some ten billion pounds sterling, which figure is said to be more than twice the present figure. In the case of soap, the plan calls for a reduction in retail prices of thirty-five per cent. That a potential market exists in Russia for a tremendous increase in soap consumption is assumed from such reports as emanate from that country. The output of the new plants, if and when they are built, should be readily absorbed. The Soviet soap enterprises may be a factor in helping to balance the scale of the world oil and fat markets, now somewhat overweighted on the production side. For the soap machinery and equipment manufacturers of England, Germany, and the United States, there may be new Russian business in the offing.

—o—

THE grocery codes ban the sale of goods below cost. This means, or should mean, that "loss leaders", a thorn in the side of trade and industry for many a year, will be abolished. What effect is this going to have on the sales of many nationally-advertised soap products? Some interesting developments are bound to ensue.

Available world stocks and production of oils and fats continues to exceed consumption

SOAP FATS —

What's Ahead for 1934?

By E. L. THOMAS*

AT no time in recent years has the oil and fat outlook been clouded with so many uncertainties. In the forefront of the picture stands the proposed five-cent excise tax on coconut and sesame oils now pending in Congress a proposal which has aroused the greatest storm in twenty years among consuming interests. From the seriousness of this tax to consumers, especially the manufacturers of soaps, may be judged the vehemence of their protests against it. While welcomed by dairy and rendering interests, it is held by American soapers to threaten their industry seriously. Further legislative measures aimed to assist agriculture and raise prices, especially if the NRA and AAA do not accomplish the results anticipated, may be forthcoming. Of course, the new monetary gold law was designed to elevate the general price structure of the country to the 1926 level. A rise in general commodity levels should naturally bring higher prices for oils and fats, probably affording producers a wider margin over costs. On the other hand, certain consumer groups, such as the soapers, would be beneficiaries of a rise in values of fats, especially those originating outside of continental United States, because these are marketed customarily under long term contracts.

Other factors deserving consideration either for their probable effect on commodities in general or oils and fats in particular, are the future status of the dollar in world exchange, the possibility of the excise tax on coconut oil being extended to other oils of foreign origin, and a continuance and possible extension of the government plan of subsidies to agriculture of which an apt illustration is the purchase of hogs from farmers last fall.

While conceding a slight increase in the volume of fats absorbed into certain consumptive channels this past year (the paint and varnish industry, for instance, enjoyed increased activity in 1933), it seems to be the consensus in trade circles that general fat consumption failed to keep pace with the flow of raw materials down the streams of supply. Our problem, therefore, is still, in the main, one of under consumption, a statement that has world-wide application. In virtually every quarter, it is agreed that consumers are maintaining complete inventories of fat supplies and for some time have been buying only to replace actual current consumption. Certain it is that the volume of trading of late has betokened no activity suggestive of speculative buying of soap kettle fats.

Production of soap in the United States last year is estimated in well informed circles to have been ten per cent under the past five-year average with the dollar value of products forty per cent less. Volume was restored to some extent last year as compared with 1932 and coincident with business revival further gains are looked for. Hotels and restaurants already are reporting better business. More patrons spell better demand

* The author was formerly Specialist in Oils and Fats in the Bureau of Foreign and Domestic Commerce, Washington, and has been identified with the industry for the past twenty years.

In 1933, coconut oil world production was the greatest in twenty years. Philippine copra production was the greatest in history.

for soap products as does renewed industrial activity in other lines. In the home a lessening of the strain of husbanding financial resources means less frugality in the use of soap. All in all, the soap industry should serve as an economic barometer for business conditions during the present year.

Advancing Prices Probable

ALTHOUGH as a whole oils and fats closed the year at relatively the same basis of values prevailing six months previously, market prices averaged approximately 33 1/3 per cent higher than at the beginning of the year. A notable exception was coconut oil. But what about the first half of 1934 and the balance of the year? Naturally, it is hazardous to express an opinion. Many in the trade have expectations of seeing tallow selling at 3½ to 3¾ cents (City Extra) along the latter part of March or early April and these same individuals consider that this will mark the peak of the price rise until a gradually advancing market occurs in the fall following a summer recession. Much the same is likely to happen to palm oil. But here, however, there is another element with which one must reckon. The depreciation of the dollar might be held responsible for the heavier imports into the United States last year (for nine months they were nearly as large as the entire previous year) since a drop in the price is translated into diminished returns to the native who gathers the palm fruit and who thus is stimulated to greater effort, the result being increased supplies.

It is maintained by many that should the dollar remain at its present value or suffer further depreciation, the tonnage of palm oil coming into the United States would continue heavy and possibly be augmented since it must be remembered also that the United States in recent years has been the largest buyer of Sumatra palm oil, which is yearly taking a place of greater importance in the world's palm oil trade. Hence, pressure of supplies on the market might operate against any appreciable advance in price unless consumptive demand broadens. Obviously, if that situation should be revealed by future developments, it is bound to affect domestic inedibles since to a certain degree interchangeability in usage exists between domestic tallows and greases and palm and coconut oils. The fact that there is a shortage of a billion pounds per year of domestic inedibles in the United States under normal conditions, has also a direct bearing on this situation.

Coconut Oil—Tax or No?

THE proposal of the dairy and rendering interests for a five-cent excise tax on coconut oil was not taken with unusual seriousness by the leading consuming groups until this was reported favorably by the Ways and Means Committee of the House of Representatives. The adoption of this tax was the cause of considerable consternation among consumers inasmuch as it would came very close to increasing the price of coconut oil by some two hundred per cent. This would mean that the oil would be almost prohibitive at the soap kettle and the pressure of consumption would turn toward palm oil, tallow, and other fats. As a result of the strong protests against this excise tax, it was reported that the Ways and Means Committee was ready to reconsider its original decision. This, however, was not the case for a vote to reconsider action on the tax was defeated in committee by 14 to 11. The tax must still pass the House, and also get by the Senate Finance Committee and the Senate itself before it becomes law. Probably in the Senate Finance Committee, the drastic character of this tax will be tempered.

Of course, it is well night impossible at this time to consider the market outlook for coconut oil without considering also the possible effects of the tax. Today, coconut oil forms about one-quarter of all the fat used in American soap manufacture. If the excise tax becomes law, it will mean that this proportion will be reduced sharply and that the coconut oil, including Philippine oil, which heretofore came to the American market, will be forced to seek a market in Europe, Japan, and elsewhere with a consequent depressing effect on those fat markets.

Eliminating from consideration the possible effects of the excise tax, consider only the coconut oil market with the greatest world production since the war. The majority in the trade shares the view that because of exceptionally heavy receipts of copra in 1933,—the largest on record in the Philippines and much in excess of a normal year elsewhere,—much reduced demand (especially from edible sources due to economic conditions), and burdensome stocks carried over into the new year, the prospect points to no material price improvement in coconut oil during the forthcoming six months. There is a natural hesitancy toward forecasting the probable price upturn during the latter half of the year but if other fats move upward, coconut oil undoubtedly will

follow suit but at a slower pace because of the necessity of digesting the present surplus stocks. It will be noted here again in the case of coconut oil that low price levels went hand in hand with larger receipts of copra, production of which was increased by the natives to compensate for the low prices ruling.

Position of Whale Oil

ESTIMATES of the probable Antarctic production of whale oil this season range around 2,500,000 barrels or slightly above the production of last season. Since the number of whales to be taken is subject to a voluntary agreement among members of the Association, it is not expected the yield will exceed the figure indicated. One large soaper in the United States is practically the sole importer of whale oil entering this country, but as the same concern also bought 20,000,000 pounds of the government hog grease sold recently, it is not known to what extent, if at all, the latter purchase may influence participation in the buyers' whale oil pool of which the soaper has been a member in past years. However, inasmuch as the catch of whales in the Antarctic represents the bulk of the world's production, and since, according to official government statistics, net consumption in this country constituted about 10 per cent in 1929 and averaged 5 per cent of the world's production the net two succeeding years, it appears probable that importations during 1934 will surpass considerably those of last year when five million pounds were brought in during the first three quarters.

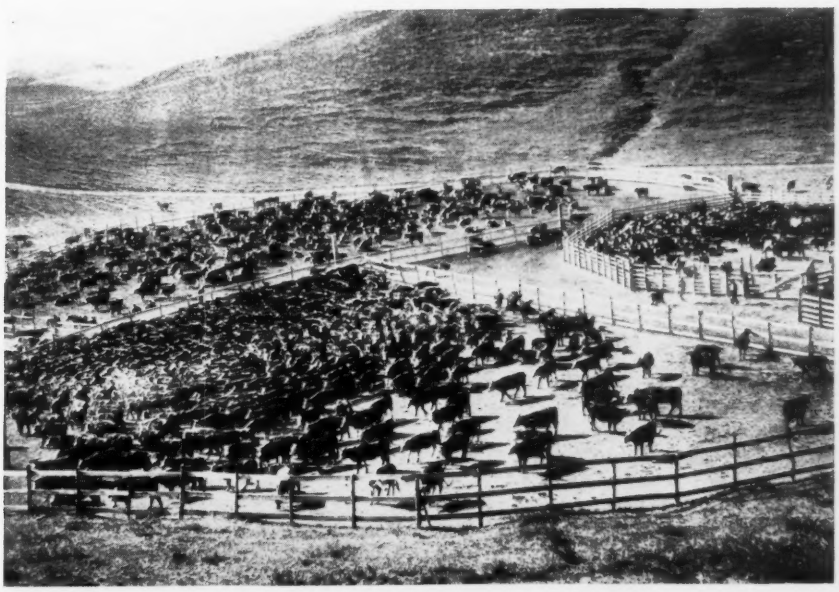
The price advance of soya bean oil due, in part, to heavier takings of domestic beans by European crushers, has removed this item again from the category of soap kettle fats. Of late the paint and varnish and linoleum industries have led in the consumption of this oil. Corn oil likewise is too high in relation to other fats to be employed in any tonnage as a soap raw material. It is improbable that either of these oils will play any but a minor role in the requirements of the soap industry during the present year, or, at any rate, until some knowledge of the size of next year's crops can be obtained. The government proposes restrictions on corn acreage next season as part of the crop curtailment policy. Whether this will result in diversion of such acreage to a wider cultivation of soya beans which, insofar as is known, are not included in the acreage reduction scheme, remains to be seen. However, government leaseholds on the land will, no doubt, retire such acreage from all crop production.

Tallow and Hog Marketing

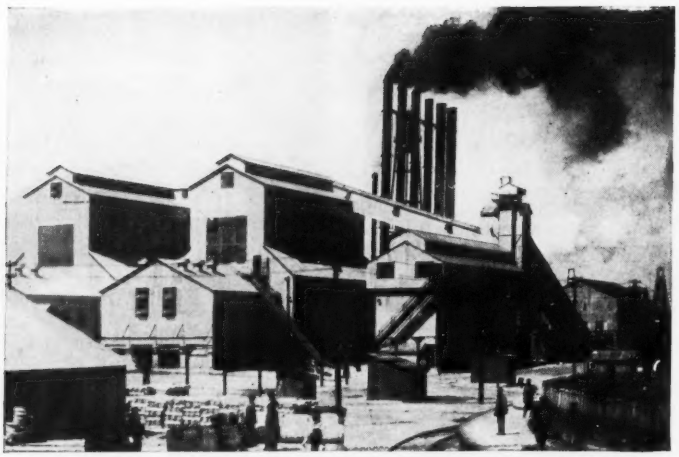
ALTHOUGH Continental Europe and the British Isles were buyers of respectable quantities of American inedible fats throughout the greater part of 1933, this export movement served principally to ease the situation with respect to supplies that were pressing on the home markets but failed to give much impetus to price advances. Values did improve for a period but the gains were subsequently lost. Shipments to Europe reached their peak in November. There is some disposition to believe that a continuance of this export trade will be threatened, not so much by a rising dollar which is looked upon as very unlikely in the imminent future, but rather by the release of stocks that have been held off the market in South America and Australia. On the other hand, it is known that the livestock slaughter in South America has been reduced to an appreciable extent through adverse exchange affecting exportation of meat products and drastic restrictions on imports into many European countries. Again, Australia has been finding a steadily expanding market in Japan for much of its tallow. That country, therefore, is no longer as dependent as formerly on the United Kingdom and the rest of Europe.

Manufacturers of by-products everywhere and ren-

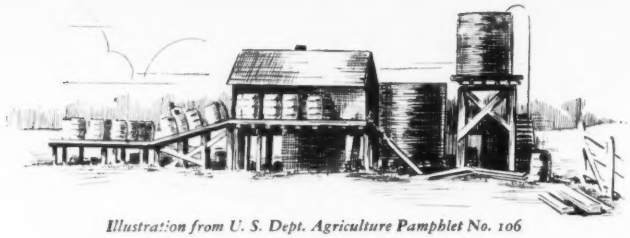
(*Turn to Page* 53)



The production of domestic inedible fats is a billion pounds less than the consuming requirements of the United States.



Part of the Naval Stores plant of the Newport Industries, Inc., Pensacola, Fla.



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The House Lever Built

Lord Leverhulme Tells How One Private Brand Soap Laid the Foundations of Lever Brothers 50 Years Ago

Viscount Leverhulme
Governor, Lever Brothers, Inc.

FROM one private brand soap, manufactured for the English wholesale grocery firm of Lever Brothers close to a half-century ago, has grown the present world-wide organization manufacturing soaps, margarine, shortening, oils, fats and other products. The present organization is comprised of more than 800 associated companies with an issued capital of $300,000,000. The management policies behind the development of the Lever companies were discussed by the present Lord Leverhulme, otherwise William Hulme Lever, 2nd Viscount Leverhulme, Governor of Lever Brothers, Ltd., in the January issue of the *Executives Service Bulletin* of the Metropolitan Life Insurance Company, New York.

In telling about the history of the House of Lever, Lord Leverhulme said in part: "Lever Brothers is today a company with an issued capital of £59,000,000, with subsidiary companies and branches in all parts of the world. Unilever is not a manufacturing company but a holding company, and it consists, on the one hand, of the ordinary capital of Lever Brothers and, on the other, of the ordinary capital of the Margarine Union, in which is comprised the businesses of Jurgens, Van den Berghs and Hartogs, as well as the Continental concern of George Schitcht A.G., the well-known makers of soap and edible products. But no picture of the organization as it exists today would be complete without including the United Africa Company, which is a merger composed of three entities—the former West African interests of Lever Brothers (including the Niger Company and our concessions in the Belgian Congo), the African interests of Jurgens, Limited, and the African and Eastern Trade Corporation. Looking at our organization as a whole, therefore, it will be seen to embody three main activities—the manufacture of soap; the manufacture of margarine and other edible products; and the supply of raw materials for these two processes.

"In the course of its development, Lever Brothers and Unilever have become interested, through associated companies, in several undertakings not directly connected with soap or margarine making, and there is within the organization today a total of over 800 associated companies. Not all of these, however, are manufacturing concerns; some are financial entities only, some are selling agencies, many are concerned in the production of raw materials, one or two in the development of real estate, and so on. To attempt to explain, either in words or diagrams, how these numerous companies are linked together and the relationship of each to its 'parent' company and to the organization as a whole would take more space than I have at my disposal.

"I have already mentioned several names— Lever, Schicht, Jurgens, Van den Bergh and Hartog. The history of all these firms can be traced back to the same kind of origin, although the circumstances and the environments differed. In each case we find the same factor common to all; the marked individuality and pioneering spirit of the founders. If I refer here only to my father, the founder of Lever Brothers, Limited, it is because I am naturally more familiar with the history of this particular firm than I am with the history of the others.

"The existence of Lever Brothers, as a limited liability company dates from 1894, and its capital was then £1,500,000. My father, Mr. William Hesketh Lever, as he then was, began the manufacture of 'Sunlight' soap —in partnership with his brother, the late James Darcy Lever—at a small works in Warrington in 1885. My father's previous business life had been spent in the wholesale grocery business of his father—Lever and Company of Bolton and Wigan. The Wigan branch was opened on my father's own initiative and it was while he was in charge of it that he marketed Sunlight soap for the first time, the soap being made to his requirements by a firm of soap makers in Leeds.

"In 1888, when the Warrington works could no longer cope with the demands made upon them, my father bought a site for a new plant in Cheshire, close to the River Mersey, and so the works and village of Port Sunlight came into being.

"My father's policy and practice in the further development of his business may be said to have followed three main lines.

"1. *Financial Policy*—My father's practice was to keep the ordinary capital of the company in his own hands and to go to the public with issues of preference shares and preferred ordinary shares. In this way he enjoyed greater freedom in embarking on new enterprises than would have been the case had the ordinary shares been in the hands of the public. It also enabled him, at a later date, to institute a 'Co-Partnership Scheme' under the terms of which the profits available for the ordinary shareholders were divided between them and employees and members of the staff to whom were allotted Co-Partnership certificates in proportion to their length of service and status in the business.

"2. *New Products*—My father followed his original article with a sequence of new ones. After Sunlight Soap came 'Lifebuoy'; after Lifebuoy, 'Lux.' He then entered the toilet-soap field and so it went on, each of the new products being developed out of the profits of its predecessors, and no step being taken until the previous one had been consolidated.

"3. *Associated Companies*—As the business in England grew, my father turned his attention to the export trade, and when the time was ripe he began establishing in his main overseas markets associated companies with factories of their own. In this way works were opened in the "nineties' in Switzerland, Australia, Canada, and at Cambridge, in Massachusetts; and so the policy was continued and is still being followed, our latest overseas factory being at Bangkok, in Siam, and one is now in process of erection at Bombay, in India.

"Side by side with this policy there was an analogous development in the home market; but the territories to be won were not overseas markets but other branches of the British soap-making industry. My father found that the most effective way of entering other sections of the trade was to buy existing, well-established businesses. These mergers were eventually followed by others, and ultimately the majority of the leading British soap manufacturing concerns became 'associated companies.'

"It is impossible here to refer in detail to the management practices which enable this large family of companies to function efficiently. There is one feature, however, which does call for special notice, because we find it was put into force by the founder of our business when he was managing the Wigan branch of his father's wholesale grocery house. I refer to his practice of making up 'pro forma' statements every three months of the sales and profits to be aimed at for the following three months, and every year for the following year. This policy he carried over into Lever Brothers and it has been followed ever since. Today every associated company in every part of the world sends to headquarters—Unilever House, Blackfriars, London—its estimate of costs, production, sales, advertising and other relevant factors for the ensuing year. On these is based a 'datum' of profits for each company to aim at. It is a vastly more complicated practice than it was in the days of a few ledgers and account books in the warehouse of Lever and Company at Wigan; but the policy is the same.

"Asked on one occasion to what he attributed his success, my father replied: 'I organize, depute and criticize'; and there is no doubt that his achievements were in a large measure due to his powers of organization and to his ability in choosing men. At the same time he knew that, in business, criticism to be useful must be constructive and not destructive.

"In reply to an interviewer who asked his opinion on the choosing of personnel, he said: 'The first qualities I look for in an employee are loyalty, integrity and industry. If with these qualities are coupled ability, ambition, alertness and quickness of perception, he is additionally attractive. When vacancies occur, requiring appointments from outside the staff, I find the filling of such vacancies full of uncertainty and surrounded with difficulties. To obtain suitable men, the best course, in my opinion, is to develop and train them on one's own staff. I think it is essential to all businesses that men on the staff should feel that they have first choice; but here the great difficulty comes in. As business gets larger, the heads of the firm come less and less into personal contact with the staff. This is the obstacle to personal selection from one's own staff, but it is not insuperable.

"It is obvious that in any large industrial organization the finding of the right man for the right place must be one of the most important considerations; especially is this so where long distances make personal contact rare. While it is wise, from time to time, to bring new blood into a concern, I feel convinced of my father's wisdom in relying mainly upon the men who had been trained and brought up in the business itself. An outstanding example of the soundness both of his policy and of his judgment is found in the present President of our American Company, Mr. F. A. Countway. When Mr. Countway joined our office staff at Cambridge as a very young man in 1897, our American plant consisted of a small wooden building with just a modest trade in the neighboring parts of New England. Today, Mr. Countway presides over what is probably the third largest soap manufacturing concern in the United States, and it is worth observing—as another example of continuity of policy—that the practice of Mr. Countway in America has been similar to the policy followed in the early days of Port Sunlight's growth—a policy of concentrating on one new line at a time, and backing each one with a strong advertising campaign based on careful research to ensure that the product itself and the method of its presentation are adapted to the precise needs of the consumer."

—o—

American Cyanamid Company, New York, has leased 120,000 square feet on the 57th, 58th, 59th, 60th and a part of the 61st floor in the new RCA Building at 30 Rockefeller Plaza, New York. The lease is for a term of twenty years commencing March 1, 1934. It is expected that the new space will be occupied about April 1, 1934.

Properties of Abrasive Polishes

Part II

By Alfred B. Searle
Sheffield, England

THE consistency of a polish has an important influence on its properties and on the manner of its preparation, the latter, in turn, affecting the properties of the final product.

Polishes are supplied in three forms—powders, pastes, and so-called "liquids" which are essentially suspensions of the solid ingredients in the vehicle. The suspensions are often only temporary. Some of the newer liquid-polishes are emulsions, this form enabling a relatively large proportion of abrasive and other detergent to be used in a cheap vehicle composed of some organic liquid and water. The stability of the emulsions is insured by the addition of a stabilizer similar to those used in the flotation of ores, although a hard curd soap, with or without a little casein, often serves the same purpose. Ordinary liquid-polishes tend to deposit the suspended matter too easily and mere shaking seldom redistributes it properly. Emulsions are usually more stable while in the bottle or container, but are much more sensitive to "dirt" on the surface to be polished and tend to break down just when their stability is most important, when the "dirt" is to be suspended and removed.

Polishing-powders are now seldom used domestically as the prepared paste and liquid-polishes are much easier to use. Polishing powders consist wholly of abrasive, though some have a small proportion of rouge or other colorant added.

Polishing-pastes consist of the various ingredients in such proportions as will produce a soft paste. They are chiefly used for shoes and furniture.

Polishing-liquids consist of a detergent and abrasive suspended in the vehicle, the latter being either a single liquid or an emulsion.

Adapting Polish to Surface

TO secure a high gloss which is reasonably durable, the composition and physical properties of the polish must be adapted to the material to be polished. A rusty or tarnished piece of metal requires a different polish than a metallic article which is rubbed daily with polish. The former must be cleaned and freed from rather deep-seated products of oxidation; the latter bears at most an almost invisibly thin film of tarnish for which only a minimum quantity of polish is required.

A badly rusted or heavily tarnished piece of metal requires treatment with a polish rich in a rust-solvent, such as oxalic, citric, tartaric, or other organic acid. This polish should also contain a grease-solvent, such as an alcohol, a ketone, an ester, or one of the modern solvents, of which a large number are available. In addition, it may be essential to include an abrasive, because the objectionable particles of rust or other oxide can usually be removed more rapidly in the presence of an abrasive than in any other way.

If the metallic surface is in an exceedingly bad state, it may even be necessary to scour it with an abrasive powder before attempting to polish it. The greater the roughness of the surface, the coarser can be the abrasive, without risk of damage.

With a metallic surface from which only a scarcely visible film of tarnish has to be removed, the abrasive must be of a mild nature and must consist of minute particles. Whiting or other forms of calcium carbonate are usually preferred, but very fine (air-floated) silica-flour may be used. The proportion of detergent needed is small and the chief purpose of the polish is to provide just sufficient "grip" for the polishing cloth or wad to remove the adhering film of tarnish or grease from the metal.

It is usually desirable to have two kinds of polish at hand: one containing a large proportion of detergent and a rather coarse, hard, sharp abrasive, to do the rough work, and the other containing a small proportion of abrasive, and that a very mild one.

Failure to recognize the very different treatment required by metals in various states of oxidation or decay has led to much damage and to a great waste of labor.

Most users of polishes wish to use one material for all kinds of surfaces, and, consequently, there is inevitably much dissatisfaction. A fine polish capable of producing the highest gloss without any scratches, will remove rust, grease, or tarnish very slowly; a coarser polish will "work" far more rapidly, but it will not provide the same quality of gloss.

When a metallic surface is covered with an enamel or lacquer, a polish containing even a moderately coarse abrasive or powerful detergent may damage the surface in a few seconds. For such surfaces, the abrasive should be very fine in texture, not too hard or it will scratch, and the detergent, if one is present, must be a very mild one. Particular care should be taken that nothing is

(*Turn to Page* 63)

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Trisodium Phosphate Detergents

By C. A. TYLER, Ph.D.

THE compounding of cleaners, dishwashing compounds, scrubbing compounds, paint cleaners, paint removers, and many other detergents containing trisodium phosphate as a major or minor ingredient has, within the last decade, become a tonnage industry. These preparations are marketed in packages of 1 to 16 ounces or more, in kegs, barrels, and even in larger individual quantities. They consist of mixtures of trisodium phosphate with nothing, with soda ash or the hydrated equivalent, washing soda, with bicarbonate of soda, with modified soda, with sodium metasilicate, with caustic soda, and with almost every other known industrial alkali. In some cases these are combined with physical cleaners such as silica, feldspar, pumice, pumicite, rottenstone, ground lava, and other abrasives. Sometimes complex combinations of these are used.

There is no other industrial alkali for which the channels of distribution of so large a proportion of the product, cannot be traced to the ultimate consumer. Trisodium phosphate is evidently sold in large tonnage by the manufacturers and but little used by consumers as such. The explanation of this is that the major use of trisodium phosphate is in branded specialties which do not disclose their composition. At one time several, if not all, of the manufacturers of trisodium phosphate were attempting to promote their sales by recommending its inclusion in compounded detergents.

Recent production figures for trisodium phosphate itself are:

Year	Production Tons	Value
1927.....	63,531	$4,524,595
1929.....	82,045	5,008,815
1931.....	82,954	4,675,085

The scale on which trisodium phosphate products are manufactured varies widely. One large manufacturer merchandises trisodium phosphate without blending, and advertisers nationally through newspaper, magazine and car-card recommendations. A multitude of "cellar-manufacturers" prepare the material with or without blending, at home or in their garages, at night and on Sunday, and distribute it through varying types of trade channels during the remaining part of their waking hours.

The physical forms in which trisodium phosphate compounds appear on the market vary from free-flowing powders through various semi-solid and solid masses,—not necessarily intentionally so,—to paste and semi-liquid products. The latter are usually metal-cleaning compounds containing soap. These are sold at competitive prices such that the presence of a considerable amount of water is essential. However, the great majority of trisodium phosphate compounds are non-saponaceous detergents.

It is rather uncommon for compounders to include trisodium phosphate in products wherein the compound is first produced in a liquid or paste form and then solidified, although there are examples of this type of product. To phrase it differently, trisodium phosphate is most commonly incorporated by physical or mechanical admixture rather than by inclusion during manufacture. The low price of disodium phosphate during 1933 tends to encourage the latter, since the disodium compound in solution can be readily converted into trisodium phosphate by the addition of the proper amount of caustic soda.

TRISODIUM phosphate appears on the market as such in a somewhat greater number of physical forms than might be expected. The normal form is the crystalline hydrate with twelve molecules of water of hydration. This has the form of characteristic tabular crystals, easily recognizable even under a low-powered magnifying glass. An anhydrous amorphous form is also offered at a correspondingly increased price. The salt also appears as round pellets, frequently described as spray-dried, although spray-congealed is a more correct term. The composition approximates that of the usual crystalline hydrate. Because of the method of manufacture, this form can be offered in colors as well as in white. The acceptance of the spray-congealed form has been limited by the fact that old manufacturers with an established trade cannot readily alter even the physical form of their product, without creating prejudice on the part of the user. The spray-congealing process was probably devised originally to avoid the caking of the salt, as this sometimes occurs in the hydrated product. The principle applied is that of producing a minimum amount of contact between the surfaces of the particles. Another method of preventing caking is the production of double salts of the phosphate hydrate with sodium chloride, sodium borate, sodium hypochlorite, etc., e.g. 5 (Na_3PO_4, 12 H_2O), NaCl. As might be expected, the electrometric titration curve of saline trisodium phosphate falls below that of normal trisodium phosphate.

When trisodium phosphate is not blended, the only problems are those of packaging and selling. For barrel quantities, the former may consist of merely removing one label and substituting another, and selling under a brand name at a higher price. The compounder does not find his operations so easy. When trisodium phosphate is mixed with an industrial alkalia which is not

fully hydrated, an interchange of water of hydration may occur. This problem would not exist if the anhydrous salt were used, but compounders in general find the use of the latter impractical because their products are usually sold on a competitive basis. This interchange of the water of hydration occurs if the tendency of the anhydrous salt to take up water, its vapor pressure in a negative sense, is greater than the vapor pressure of the hydrated trisodium phosphate.

The field of manufacture of these compounds is strewn with the business wrecks of those who have sold blends of trisodium phosphate which left the factory as free-flowing powders, and a few weeks or months later were found by the dealer or consumer to have a rock-like consistency. This explains a tendency in the trade to blend trisodium phosphate with modified soda rather than with soda ash, a tendency which is technically unsound. The formulation of such blends is far removed from the simple matter of mixing two individual alkalies selected at random. Aside from a proper consideration of the vapor pressure of the materials compounded, other attempts have been made to solve the caking problem. One is to coat the individual particles with protective, water-soluble films. Another is to mix in a protective agent to exercise the same function as that of starch in baking powder. No marked success has been attained by coating methods. The avoidance of caking of the compound is normally a specific problem, depending on the individual product. Under certain conditions violation of general rules can be compensated for by specific methods of handling.

The possible interchange of water of hydration is not the only difficulty. Many compounds, when not properly formulated, exhibit tendencies toward mechanical segregation, resulting in the major portion of the trisodium phosphate being at the top of the package, and the major portion of the other ingredient or ingredients at the bottom, or vice versa. This is overcome by having the particle size of the various ingredients similar, and by avoiding wide differences in the specific gravity of the ingredients.

THE formulation of compounds containing trisodium phosphate is frequently defective from a theoretical standpoint. Theoretically trisodium phosphate may be blended with true alkalies or with the completely neutralized type of alkaline salts. This would exclude borax, bicarbonate of soda, and modified soda. While for practical reasons the latter are sometimes used, formulation to include them can be avoided with greater efficiency in the resulting product. Compounds of trisodium phosphate with caustic soda are relatively unstable to exposure. Such mechanical mixtures exhibit the well-known property of caustic soda of absorbing moisture from the air, and liquefying or caking. Inventions by non-technical workers in the field are numerous. Too often they resemble a case in which a man produced what he called an ideal paint brush cleaner by blending three commercial brands of T.S.P. in varying proportions. Analysis showed that it, and the three commercial products blended were 100 per cent trisodium phosphate.

The so-called all-purpose cleanser for use in the home may contain almost anything. Trisodium phosphate is frequently an important ingredient because of its real merit as a detergent. For metal cleaners the salt is frequently compounded with caustic soda, soda ash or soap, or with any combination of these. For paint brush cleaners, caustic soda must be low, if present at all. Paint cleaners should not ordinarily include any caustic soda or sodium metasilicate. The milder industrial alkalies may be blended with trisodium phosphate for this purpose. Paint removers on the other hand, may contain a certain amount of excess soda. As a paint remover, trisodium phosphate is used at about one pound to the gallon, in contrast to one ounce per gallon for the cleaning of paint.

The field of dishwashing compounds is a favorite for trisodium phosphate compounders. Some improve the product by adding a pH indicator which shows whether or not the material is nearly exhausted, since the alkalinity may be largely neutralized by acidity from the soil on dishes. Color change indicates exhaustion of alkaline detergent action. Other producers incorporate a sterilizing agent, which may be added solely as an admixture. One manufacturer utilizes a solid mixed salt of trisodium phosphate with sodium hypochlorite to introduce the sterilizing effect. A type of product which is beginning to attract attention is the fused brick of trisodium phosphate, with other alkalies. This is used primarily in dishwashing machines and is designed for slow, uniform solution to keep the pH of the wash liquid constant.

THERE is a whole class of cleansing materials consisting essentially of an abrasive, and one or more alkaline salts. Many of these are compounded of various grades of silica with soda ash. There is a tendency among the more meritorius to use some trisodium phosphate, or to use it as the sole alkaline salt.

Until the relatively recent use of sodium metasilicate as a bottle-washing compound, trisodium phosphate largely divided this field with caustic soda,—with a tendency for the latter to predominate. The use of caustic soda is declining and that of metasilicate increasing. Trisodium phosphate is apparently holding its own. The latter tends to counteract the too-high wetting power of sodium metasilicate against the metal of bottle-washing machinery. This high wetting power causes the detergent solution to creep into the bearings and displace the lubricant.

One of the specific properties of trisodium phosphate is its ability to react with lubricating greases containing heavy metal soaps. For this reason it is sold directly to factories to remove oil and grease from both clothing and

(*Turn to Page* 45)

Soap Code Rulings

RULINGS made by the Code Authority of the soap and glycerine industry at its January and February 8th meetings are given below. These rulings represent official interpretations of the code of the soap and glycerine manufacturing industry which have been made in response to inquiries submitted by firms in the industry. If there is any question regarding the interpretation of the code, the interested party should communicate with the Code Authority, Soap and Glycerine Manufacturing Industry, 386 Fourth Avenue, New York. The Code Authority consists of the board of directors of the Association of American Soap and Glycerine Producers, Inc., together with Captain Joseph F. Battley as representative of the NRA. Roscoe C. Edlund is executive secretary of the Code Authority.

Question: Do all glycerine manufacturers, including refiners, come under the Soap and Glycerine Code? What about importers of glycerine?

Answer: Technically, the Soap and Glycerine Code applies to all glycerine manufacturers in Continental United States, including refiners. It does not apply to importers, because the Code is purely a manufacturer's code. The language of the Code refers to "glycerine which is by-product of the saponification industries," but since commercially-produced glycerine originates only in the saponification industries all commercial glycerine manufactured in Continental United States is technically covered by the Code.

In actual practice, however, exception in the present application of the Code to the manufacturer of glycerine is made in certain instances covered below. The following paragraphs show more specifically the present application of the Code: (A) It covers all Continental United States manufacturers of soap or soap products who produce or refine glycerine. (B) It covers all Continental United States refiners of glycerine of any grade. (C) For the present, the Code is not interpreted as applying to companies who recover glycerine from products or processes of which glycerine has been a part, as for example recovery of glycerine from printers' rolls. (D) For the present, the Code is not interpreted as applying to stearic acid manufacturing, candle manufacturing, or manufacturing other than soap making, wherein glycerine is derived as a by-product.

Question: Must we comply with the provisions of the Soap and Glycerine Code in the manufacture of soap where our production of soap is only a small part of our total production?

Answer: The Code of Fair Competition for the Soap and Glycerine Manufacturing Industry applies to all soap manufacturing in Continental United States. It makes no difference how much or how little soap is made, or how such production compares with the volume of other goods made by the same manufacturer. If any soap is made, the manufacturer thereof is subject to and must comply with the provisions of the Soap and Glycerine Code insofar as soap and/or glycerine is concerned.

A manufacturer who makes products which come under more than one code, must observe every such code in regard to the manufacture and/or distribution of products coming within the scope of such code and to the extent specified therein. No manufacturer may choose the code or codes he will work under. They apply to the products defined in each, regardless of the personal views or desire of the manufacturer. This is the ruling of the NRA to date.

If a manufacturer is convinced that to be obliged to comply with more than one code would be an undue hardship on him, he may request the NRA for an exception from complying with those codes which he thinks should not apply to his business. It is within the discretion of the Administrator of the National Industrial Recovery Act to grant such exemptions if the manufacturer can show clearly that it would be unjust to insist that he comply with the codes from which exemption is requested.

A request for exemption must be substantiated by a sworn statement of facts which support the claim that to comply with a particular code would work an undue hardship on the manufacturer. The request should also consent to making available all records, statistical data, and other information which the NRA might require in building up a factual record on which the Administrator may take action. In making a request for exemption, a manufacturer should state under what code or codes he can operate without working an undue hardship on him. A request for exemption should be made direct to the NRA at Washington and should be accompanied by a statement as to whether or not the manufacturer is operating under the President's Reemployment Agreement or any approved code.

Notice that request for exemption from the Soap and Glycerine Code is being made by any soap manufacturer should also be sent by him to the Code Authority, Soap and Glycerine Manufacturing Industry, 386 Fourth Avenue, New York, at the same time the request is sent to Washington.

Question: Is the owner of a private brand of soap, whose soap is manufactured for him by other companies, covered by the Soap and Glycerine Code?

Answer: No. This Code covers manufacturers only.

Question: Are importers of soap and glycerine covered by the Soap and Glycerine Code?

Answer: No. This Code covers manufacturers only.

Question: We have a problem arranging hours for our fireman. He works 7 days of 8 hours each—56 hours weekly. He only operates the boiler 6 days, but he always has emergency or repair work that he has to do on Sunday, and which cannot be done when the steam is up in the boilers. Since emergency work is exempted from the 40 hours weekly average in the Code and the extra 8 hours are spent entirely on repairing and emergency work, can we continue on our present 56 hours weekly basis with him, or do we have to pull him down to 48 hours? Some weeks he may run a couple of hours over 56, and other weeks will run under. We pay him a weekly wage of $40.

Answer: The weekly wage has nothing to do with how many hours he can work. As a fireman he is limited by Article III, Paragraph A, Section 5 of the Code, to not over 48 hours work per week, and except for real emergencies is not permitted to work beyond that limit. Recurring repair work that has to be done every Sunday is not "*emergency* maintenance and repair work," as described in Section 1 of the same paragraph of the Code. On the contrary, it is a regularly recurring repair job that must be provided for in some other way. 48 hours of work per week is the limit for this employee.

Question: What reports are soap manufacturers required to make under the Code, and to whom?

Answer: The complete answer to this question is not yet worked out. Under the Code, however, (Article VI, D, 1) the Code Authority must obtain from all employers in the industry such reports as the President of the United States or the Administrator may require, and all manufacturers in the industry are required to supply such reports to the Code Authority (or its agent) when so requested. Every manufacturer in the industry should, begining November 13, 1933, keep his employment records in such shape that he can report promptly at any time concerning all matters covered by the Code, specifically including the following:

Hours, and particularly *maximum* hours, worked by any or all employees whose working hours are regulated by Article III of the Code or any of its Paragraphs or Sections; the *average* hours thus worked by any such employees per week in the 6-months' period beginning November 13, or for any part of that period upon which reports prior to the expiration of the period may be required; hours worked, and overtime payments made, in all instances covered by Article III Paragraph B; wages paid to any or all employees whose wages are regulated by Article IV of

(*Turn to Page* 31)

New Products

Drene Shampoo,—the newest of the new in shampoos, a solution of fatty alcohol sulfate. Contains no soap. Impervious to hard water. Said to be the ideal type of shampoo. A companion product of Dreft, the new detergent. Made by Procter & Gamble.

McKesson and Robbins redesign the packages for their line of men's toiletries. Closures of Durez by Colt's of Hartford, Conn. Bottle by Owens-Illinois. Tube by New England Collapsible Tube. Can by Tin Decorating.

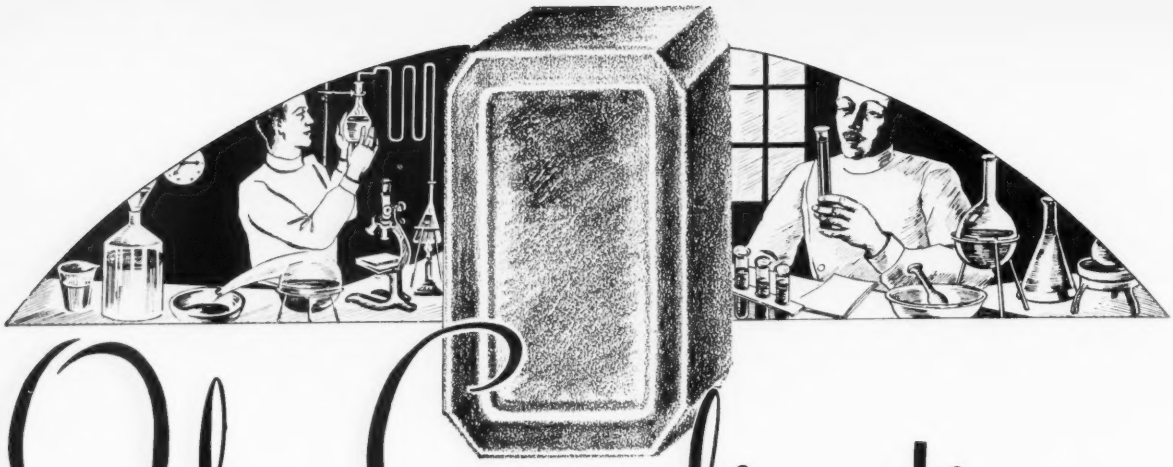
The Three Little Pigs in soap have been reported to be an active seller. Design, including the box cover, by Walt Disney, himself. The soap is manufactured by the Lightfoot Schultz Co.

and Packages

An attractive trio of new household products numbered among the private brand lines of R. H. Macy & Company, New York. Design in blue and white.

A new modernistic bottle for the barber-supply trade designed and manufactured by Owens-Illinois Glass Co. The product here is made by George H. Weyer, Inc., Kansas City.

Arlco Sparkling Cleanser is a new porcelain and enamel cleaner, made in paste form and packaged in tubes for convenient use. The cleanser is made by Arlco Manufacturing Company of Boston. Tube by National Collapsible Tube.



Odor Coordinating

Have you considered the sales value of a new, a fresh and an inviting odor to brighten up and give new life to your line of toilet preparations and soaps?

For over sixty-one years our organization has specialized in the creation of just such odors for manufacturers of toilet articles and soaps.

Perfuming or odor-coordinating is an art, the excellence of which measures one's experience and knowledge of the odor value of the greatest number of aromatic raw materials available.

Naturally it is a source of pride to us to have had a part in the success of a number of outstanding toilet preparations and soaps.

Our well rounded experience together with the resources of our laboratories are at your disposal to aid you in the selection of a new odor, or in choosing the best raw material for your purpose, should you prefer to create your own.

FRITZSCHE BROTHERS, Inc.

Proprietors of
Parfumeries de Seillans
Seillans, France

118 W. OHIO STREET
CHICAGO

78-84 BEEKMAN ST.
NEW YORK, N. Y.

Sole Agents in U. S. and Canada for
Schimmel & Company
Miltitz (nr. Leipzig) Germany

Fritzsche Brothers of Canada, Ltd.
77-79 Jarvis Street, Toronto

Soap Code Rulings

(*From Page* 27)

the Code or any of its Paragraphs or Sections, including particularly Sections 1, 2 and 4 of Paragraph A; number of employees, working arrangements, and payments made, under the provisions of Paragraphs B and C of Article IV; statistics as to number of employees at any and all times under the Code; together with any and all data and information concerning working conditions, wage scales, aggregate wage payments, etc., as may be required from time to time through the Code Authority by the President of the United States or his authorized representative.

Confidential treatment of all reports of a confidential nature, is required by the Code.

Question: Referring to men working on continuous processes at an hourly rate of pay and receiving less than $35 per week, we understand of course a 40 hour week up to 48 hours is provided for such type of emergencies. Are we to understand that this type of labor is to be paid time and one-third for the extra hours over the 40 in any calendar week?

Answer: Yes, according to Article III-B of the approved Code, any employee on an hourly rate of pay who works in excess of eight hours in any 24 hour period, or in excess of 40 hours in any calendar week, must be paid for the excess hours not less than one and one-third the regular hourly rate. The application of the overtime provision does not depend on whether the employee is engaged in a continuous process, nor does it depend on the employee's working more than 40 hours in a week, if the employee should work more than 8 hours in 24. The point is that he must be paid overtime for every hour worked over eight in any 24 hour period or if he works eight hours or less a day but more than 40 hours per week, he must be paid overtime for the excess of hours over 40.

Question: We employ three girls on minor jobs, principally in the nature of folding circulars and letters, to whom we have paid $10 a week and whom we will be compelled to replace either by a machine or one experienced person if we are required to pay the minimum of $14 per week provided under the Soap and Glycerine Code. Under the circumstances may we be exempted from the minimum wage provisions of the Code with respect to these inexperienced girls?

Answer: The Code Authority is not authorized to make any such exemption. It is the duty of the Code Authority to interpret fairly and accurately the provisions of the Code. It is not within the power of the Code Authority to read into the Code provisions or exemptions which do not appear therein or are not already provided for by law. You must, therefore, observe the minimum wages provided by the Code.

Question: We have a request from one of our customers to furnish them with a certified statement showing that we are operating under the NRA and members under a particular code. It is our understanding that there will be issued a certificate number to all manufacturers operating under special codes, and therefore we would appreciate a word from you advising when and how this certificate will be issued so that we may advise our customer accordingly.

Answer: It is perfectly proper for an NRA customer to ask for such certified statement as the one requested from you. In fact it is in accord with good NRA practice for customers to purchase from those who can give such certified statements. At the present time, write your own certified statement. Language along the line of the following would be satisfactory: "We, the ———— Company, hereby certify that we are operating under the Code of Fair Competition for the Soap and Glycerine Manufacturing Industry, and are observing all the provisions of that Code." We understand that later on the NRA may adopt, or suggest the adoption by each Code industry, of some specific insignia for the members of such Code. When this is done in the Soap and Glycerine Manufacturing Industry, all members of the Code—which means all who have specifically assented to the Code—will be notified.

Question: We make a hand cleaner composed of a mixture of several soap powders which are made under the Code of Fair Competition for the Soap and Glycerine Manufacturing Industry. Do we ourselves come under this Code?

Soap Meeting, Chicago, March 8

A general meeting of all branches of the soap manufacturing industry of the United States is being planned for March 8 or thereabouts in Chicago. The meeting will be held under the auspices of the Code Authority of the Soap and Glycerine Manufacturing Industry. A general discusion of code and other industry problems will be held. All American soap makers are eligible to attend. All known soapers will be sent full details by R. C. Edlund, executive secretary of the Code Authority.

Answer: Yes, the Code of Fair Competition for the Soap and Glycerine Manufacturing Industry applies to the manufacture in Continental United States of "soap products" as well as household, industrial, and toilet soaps, and glycerine. A hand cleaner composed of a mixture of several soap powders is a soap product and belongs under this Code.

Question: I should like to have you advise me if there is any objection where a concern does better than the Code requires. For instance, some of our people are paid more per hour, considerably, than the amount indicated in the Code.

Answer: There is no objection whatever to an employer doing better than the Code requires.

Question: We manufacture many products in addition to soap, which is only a small part of our total manufacturing business. Must we keep records of the amount of hours which our employees put in on soap-making alone? I shall just cite as an instance one employee who works on a number of different vats and tanks. It would seem to take unnecessary time and expense, if we have to keep track every time this man goes from a tank of pine tar disinfectant to draw off perhaps five gallons of liquid soap from a soap tank. Can we avoid the extra time and trouble that would be involved in this record keeping?

Answer: Your particular question falls into what is termed a classification problem, decision on which must be made by the NRA. Your letter has been forwarded to the administration member of the soap and glycerine industry for such action as may be necessary.

Question: (a) Will it be possible for coupon distributors doing house-to-house work distributing advertising circulars five days per week, totaling forty hours, to work an additional day of eight hours on Saturdays in grocery stores selling bargain combinations to consumers, and be thereby considered as outside salesmen for the Saturday? These distributors are temporary employees and their term of employment would usually be less than six months. (b) Could employees of this sort be classified as outside salesmen for the entire week of six days or forty-eight hours (Article 3—Par. A, Section 1)?

Answer: (a) It would be a violation of the code for coupon distributors to work more than an average of 40 hours per week in any six months' period. The question of whether they are temporary or permanent employees has nothing to do with this ruling. However, when such employees are employed less than six months, the average hours worked during the period of their employment, must not exceed forty hours per week. If in any calendar week, employees on an hourly rate of pay work more than 40 hours, or if in any 24 hours they work in excess of 8 hours, they must be paid not less than time and one-third for all overtime. (b) It would not be proper to classify employees of this sort as outside salesmen.

Question: Our products bring us under the Soap and Glycerine Code, which, of course, has already been assented to. They also will bring us under one or more proposed codes when they are

(*Turn to Page* 47)

Soapers Fight Coconut Excise Tax

In a hearing before the Ways and Means Committee of the House of Representatives, Washington, representatives of the soap industry staged a strenuous fight against the proposed excise tax of five cents per pound on coconut and sesame oils. In spite of the efforts of the soap men, the tax was adopted by the committee. At a later meeting of the Ways and Means Committee, held for the purpose of reconsidering the tax, the committee voted 14 to 11 against any reconsideration, thus keeping the tax of five cents. The tax was advocated by the dairy, rendering and cotton oil interests. It was backed also by one prominent packer and maker of a detergent. Other leading packers opposed it. Those who appeared for the soap industry included F. M. Barnes of Procter & Gamble Co., James Reeves of Lever Brothers Co., Russell Colgate of Colgate-Palmolive-Peet Co., Daniel McIver of the Original Bradford Soap Works, P. H. Redding of Wilbur-Ellis & Redding, Inc., John Baker of the Philippine Refining Co., James Craig of Spencer Kellogg & Sons, Dudley Bloodgood of United Africa Co., Charles V. Bacon, technical consultant, and John Gordon of the Bureau of Raw Materials of the American Vegetable Oils and Fats Industry.

—o—

German Soapers Regulate Prices

Fierce competition among German soap manufacturers has led Dr. Schmitt, Minister of Commerce, to interfere, according to a Berlin dispatch recently to the London Daily Mail. It said in part: "The manufacturers tried to help themselves by uniting to fix prices, but the few who remained outside and continued to cut prices seemed likely to destroy the plan. Dr. Schmitt has now ordered the dissenting manufacturers to join the Soap Manufacturers' Association, but this does not mean that the combine will be able to dictate prices at their will. The Ministry has examined the present prices and issued orders that the charges for a number of soaps are to be lowered. Thus the customer is protected, and at the same time unfair competition is excluded."

—o—

Six New Soap Plants for Russia

Union of Soviet Republics has prepared elaborate plans for an increase in soap production by 1937, the end of the Second Five-Year Plan. The aim of the State industrialists is an increase from £4,300,000,000 in 1932 to £10,300,000,000 in 1937. Other objects aimed at in the program are: reduction in retail prices by 35%, increase in wages by 2.1%, and increase in employment by 30%. A number of textile, cotton, silk and shoe factories in addition to modern plants for the production of foodstuffs and soap are to be erected. The six soap plants are to be built on the most advanced principles. Manufacturers in the United States are likely to benefit from orders for machinery and general soap plant equipment. Amtorg Trading Corp., 261 Fifth Ave., New York, are official Soviet Government commercial agents in the United States.

Coulter Succeeds N. N. Dalton at C-P-P

J. A. Coulter, formerly general superintendent of the Colgate-Palmolive-Peet Company, has been elected vice-president in charge of production and a member of the company's board of directors, according to an announcement by S. Bayard Colgate, president. Mr. Coulter succeeds N. N. Dalton, who resigned on December 31, 1933. Mr. Coulter has been connected with the company since 1923. He was located in the Milwaukee office until the time of the Palmolive-Peet merger, after which he became general superintendent.

—o—

Postpone Private Brand Code Hearing

The public hearing on the proposed code for the non-advertised and special brand toilet soaps manufacturing industry, scheduled for January 25, was indefinitely postponed by Deputy Administrator Charles H. Herty. The code is a supplement to the soap and glycerine code. Postponement was at the request of some units of the industry who oppose a supplemental code for the private brand toilet soaps division. These units are insisting that all sections of the soap industry be governed by one code and one code authority. Because of these differences, it was decided to postpone the hearing to give an opportunity for all interested to state their views informally to the administration. Further meetings to discuss the private-brand code were held in Cincinnati, Feb. 14 and 15.

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Lee Bristol Dinner Toastmaster

Lee Bristol of the Bristol-Myers Co., New York, will act as toastmaster at the ninth annual Drug, Chemical and Allied Trades Dinner to be held on Thursday evening, March 8, at the Waldorf Astoria Hotel, New York, according to an announcement from Joseph A. Huisking of Charles L. Huisking & Co., reception chairman. Postmaster General James A. Farley will be the speaker of the evening. The dinner will be held under the auspices of the Drug, Chemical and Allied Trades Section of the New York Board of Trade. This is the single largest function of the year, embracing the drug, chemical, essential oil, soap, insecticide, disinfectant, flavoring, and allied trades. Last year, 900 persons attended. This year, 1,000 are expected, according to early reservations. Many firms are reported making up one or more tables of ten for executives and staffs. Delegations from out-of-town cities, including Philadelphia, Chicago, Boston, Baltimore, Cleveland, Detroit and other cities will be present. Over twenty-five national and local trade associations are cooperating with the Drug and Chemical Section. The price for the dinner is six and a half dollars per person. Ray C. Schlotterer, secretary of the Section, is in charge of reservations. He is located at 41 Park Row, New York.

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A marketing agreement, signed by processors of gum rosin and turpentine, has been approved by the U. S. Secretary of Agriculture. Marketing quotas and a licensing system are provided for in the agreement.

CHICAGO TRADE NOTES

Seventy members were on hand for the first meeting this year of the Chicago Drug and Chemical Association, January 25th, at the Chicago Athletic Club. Exceptional entertainment was furnished by Ned Melroy, comedy artist.

—o—

Andrew M. Lynch, father of J. J. Lynch, veteran purchasing agent of Armour & Co., died last month. Mr. Lynch, Sr., was the oldest member of the Chicago Board of Trade.

—o—

N. N. Dalton, vice-president in charge of production and director of Colgate-Palmolive-Peet Co., has resigned from all official duties in the company. Mr. Dalton has been in the services of the company since the consolidation of Peet Bros. and the Palmolive Co. At the time of that consolidation Mr. Dalton was vice-president in charge of production for Peet Bros. in Kansas City and took over the same position for the combined company. It is reported that Mr. Dalton retains a large stock interest in C-P.P.

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Representatives of manufacturers of non-advertised and private brand soaps met in Cincinnati, February 14th and 15th to discuss further the adoption of a trade practice code for their branch of the industry.

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George Wrisley of Allen B. Wrisley Co., Chicago, appeared before government officials at the hearing on the toilet articles code in Washington, January 17th. Mr. Wrisley is fighting to secure the adoption of a separate trade practice code for the manufacturers of non-advertised and private brand toilet articles. According to Mr. Wrisley, unless they secure a separate trade practice code, manufacturers of private brand products will be greatly handicapped. Thus far there has been no decision on this matter but apparently there is a good chance for the private brand manufacturers to win their point.

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Antiseptol Company, Inc., Chicago, has placed on the market this month a new product to be used as a bactericide, disinfectant and deodorant, chiefly for the dairy and food industries. The new product, known as Antiseptol, is a stable dry powder that gives a clear solution in ordinary water and can be used to make available a chlorine solution of any desired strength. Antiseptol is stated not to corrode metals, or damage the skin or fabrics.

—o—

Triangle Package Machinery Co., Chicago, have completed the development of a 5-lb soap flake carton sealer and automatic weigher which is said to incorporate many new features and improvements over other types now on the market. The machine will handle packages down to 20-oz. size. It requires two operators and will produce 10 or more 5-lb. packages per minute. Smaller sizes have a correspondingly greater production. The machine is priced at a low figure.

—o—

The Solutionizer Co., 7712 S. State St., Chicago, manufacturers of soap sudsing equipment, is now offering an improved model of the *Solutionizer*. This is an attachment for drums of soft soap that mixes soap and water in any desired strength. It is intended for use with soaps made from vegetable oils such as coconut oil, linseed oil, etc., not for tallow or cottonseed oil soaps. Jobbers may obtain the *Solutionizer* device along with bulk soap from Armour & Co., Chicago.

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Sulphonated Oil Assn. Elects

C. P. Gulick, president of the National Oil Products Co., Harrison, N. J., was again elected president of the Sulphonated Oil Manufacturers Association held recently at the Hotel New Yorker, New York. C. M. Braham of the Arkansas Co., was chosen vice-president and H. B. Sweatt as secretary-treasurer, both re-elected. The directors chosen are C. P. Gulick, V. H. Berman, J. G. Nathanson, C. B. Braham, D. S. Whiteman, H. B. Hooper, H. T. N. Smith, F. C. Scholler, John C. Wolke, C. D. Marlatt, A. E. White, and G. J. Desmond. The executive committee selected by the board is comprised of C. P. Gulick, C. D. Marlatt, V. H. Berman, C. M. Braham, and John C. Wolke.

C. P. Gulick

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Alexander Retires from Eagle Soap

Benjamin Alexander, for a number of years president of the Eagle Soap Corp., Chicago, has disposed of his interest in that company and retired from the business. The Huntington Laboratories, Huntington, Ind., has acquired his interest in Eagle Soap and will move the business to its Huntington offices. Mr. Alexander, accompanied by his family, will leave for a round-the-world trip from San Francisco on March 4th and is not expected to return to Chicago before the end of the year. He has not announced future plans.

The announcement of the acquisition of Eagle Soap by Huntington Laboratories, came from J. L. Brenn, president of the latter company, who has also been part owner in Eagle for some years. Mr. Alexander was also a vice-president of Huntington Laboratories. The dry cleaning soap division of Eagle has been turned over to J. F. Kohl, manager of the dry cleaning department at Huntington Laboratories. The work of Mr. Alexander will hereafter be handled directly by Mr. Brenn.

SOAP presents a *perfuming problem* of a special character. To handle it successfully requires intimate knowledge of soap manufacturing and, above all, experience with soap perfumes.

We have done a considerable amount of work along those lines, and offer several series of soap perfumes of *tried worth.*

Send for *smelling samples.*

Almond
Almond—Rose
Almond—Cocoa
Antiseptic Odor
Bouquets of great variety
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Cedar
Citrella
Cologne
Fougere
Gardenia
Geranium
Girella
Jasmin
Lavender
Lemon
Lilac
Lily
Mint
Narcissus
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Oriental
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Also many odors for shampoo and liquid soap

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315 Fourth Avenue, New York
180 No. Wacker Drive, Chicago
438 West 48th St., Los Angeles
42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

PERSONAL AND IMPERSONAL

George L. Guempel, manager of the toilet soap department of Los Angeles Soap Company resigned his position effective February 1st, and has joined Weaver Jackson Sales Company, Los Angeles, as vice-president in charge of sales. Weaver Jackson Company has been in business since 1887 and specializes in cosmetics for distribution on the Pacific Coast. Mr. Guempel will take complete charge of sales and looks forward to distributing various cosmetics items all over the country.

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Conti Products Corp., importers of castile soap, and Charles L. Huisking & Co., New York, have jointly leased a new building adjoining their old quarters, and now occupy the entire premises at 149-155 Varick St. Charles L. Huisking, president of both companies, sailed January 17 for a trip to Norway, Germany and England.

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Manhattan Soap Co., New York, maker of "Sweetheart" soap, has recently gone on the air with a radio program featuring Ruth Jordan, beauty specialist.

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Fischbeck Soap Co., San Francisco, maker of Queen Lily soap, has appointed The Dake Advertising Agency, Inc., San Francisco, to direct its accounts.

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E. G. Eckerman, sales manager of Davies-Young Soap Co., Dayton, and Mrs. Eckerman, recently celebrated their twenty-fifth wedding anniversary.

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At the annual meeting of Albany Soap Corp., Albany, N. Y., in January, the following officers were elected for 1934: Joseph Grober, president and general manager; Wm. C. Schopman, first vice-president; Harold Hallenbeck, second vice-president; Wm. H. Geier, assistant manager; John H. Rea, treasurer; and Harry J. Geier, secretary.

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Colgate-Palmolive-Peet Co. has announced the appointment of W. W. McKee as manager of its Cincinnati toilet articles sales office. Mr. McKee was formerly in charge of the sales office at Omaha. At Cincinnati he succeeds A. N. La Belle who has just been transferred to the Chicago office to assist in direction of toilet article sales throughout the United States.

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Mrs. Clara L. Bartlett, widow of Charles L. Bartlett, who was at one time manager of Procter & Gamble Co. at Chicago prior to his death in 1909, died at the Hotel Plaza, New York, in January after a brief illness. A son, Valentine Bartlett, survives.

A new office will be opened by Haskins Bros. & Co. in the business section of Sioux City, Ia. The Haskins terminal, a three-story brick building in the stock yards district, has been sold, but the Haskins company will retain manufacturing space in the terminal.

—o—

R. J. Colter, Frederick Stearns & Co., was elected president of the Michigan Cosmetic & Extract Association at the second annual meeting of that group, together with the following slate: Vice-president, Paul Porier, Fairytone Laboratories; secretary-treasurer, Maison G. de Navarre, Detroit; members of the executive committee, R. M. Stevenson, Givaudan-Delawanna, Inc., and R. A. Vicary, Mark W. Allen Company.

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A new product of the Quaker Chemical Products Co., Conshohocken, Pa., is "Whale Oil Soap S," produced from the residual oils supplied by a firm which extracts vitamins from cod liver oil. The product is sold on a basis of 30% maximum moisture content.

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Wilbur Hine of the Soap, Perfume and Glycerine Workers Union was one of the labor advisers at the open hearing, January 17, on the code for the perfume, cosmetics and toilet preparations industries. Dr. A. H. Myers of the division of research and statistics of the New York Department of Labor and formerly with B. T. Babbitt, Inc., also acted as an adviser.

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At the recent annual meeting of Armour & Co., in Chicago, eight new directors were elected. They are Frederick H. Prince, James A. McDonough, Weymouth Kirkland, Elisha Walker, Lester Armour, Philip D. Armour, Charles E. Uhlman and S. Mayner Wallace. Samuel McRoberts, of New York, resigned as a director prior to the meeting and Frank G. Allen and A. M. Hoagland retired.

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Barbasol Co., Indianapolis, has introduced a new price stabilization program and wholesale distributors have been advised that the company will refuse to do business with distributors who do not respect the resale schedule. A new 50c tube of shaving cream has been introduced to replace the 65c size which was discontinued January 15.

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The new seven-story addition to the Cincinnati plant of Andrew Jergen Co., soaps and perfumes, is nearing completion and will shortly go into production. Cost of the new productive facilties is estimated at $75,000.

COLUMBIA

SODA ASH
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CAUSTIC SODA
•
MODIFIED SODAS
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CHICAGO

CAREW TOWER
CINCINNATI

SANTA FÉ TERMINAL BLDG.
DALLAS

Plant at BARBERTON, OHIO

Fire in the plant of Stevens Soap Corp., Brooklyn, January 18, burned out the entire shipping room and resulted in stock damage to the amount of approximately $5,000. No machinery damage resulted and the plant was in operating shape as soon as the debris and water had been cleared away. The loss in stock, principally soap powder, was covered by insurance.

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A recent announcement by officials of Procter & Gamble Company indicates that a total of $354,840 was distriubted to employees as profit-sharing dividends during 1933. The profit-sharing plan is based on stock ownership, some 180,000 shares of stock, valued at current market prices at $7,200,000, being held by employees.

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Iowa Soap Company, Burlington, Iowa, reports working three full shifts at the present time and with indications pointing to continued activities, public works activities, especially in the Iowa territory having stimulated demand.

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Gordon H. Sloan has been appointed general sales manager of the Colgate-Palmolive-Peet Company of Canada, Ltd., Toronto. He has been with the organization for the last sixteen years.

—o—

Procter & Gamble Co. was the second largest magazine advertiser in the United States in 1933, according to statistics compiled by National Advertising Records, its expenditures aggregating $3,249,080. Other leaders and their totals follow: fourth, Lever Bros. Co., $2,677,508; seventh, Lambert Co., $2,140,625; eighth, Colgate-Palmolive-Peet Co., $1,757,014; eleventh, Bristol-Myers Co., $1,280,575; and fourteenth, Pepsodent Co., $901,762.

—o—

The offices of the Kolynos Sales Co. have been moved recently to 117-125 Seventh Avenue, South, New York.

—o—

Davidson Commission Co., oil and fat brokers, Chicago, have issued their annual compilation of high and low price records of fats, oils and by-products for the past ten years. Copies of the booklet may be obtained by addressing Davidson Commission Co. at 327 S. La Salle St., Chicago, mentioning the name of *Soap*.

—o—

R. C. Buck of Darling & Co., Chicago, states that the rendering interests were not represented by him in the presentation of their case before the Ways and Means Committee at the Oil and Fat Excise Tax Hearing, as reported in the last issue, but by George Link, Jr., counsel for the Association of American Producers of Domestic Inedible Fats.

—o—

Neverring Mfg. Co., New York, maker of cleaning fluid, has recently moved from 234 West 35th Street to 200 West 34th Street.

J. J. Hailey, Niagara Alkali Co., has been elected a director of the Niagara Frontier Industrial Traffic League, Buffalo, for a two-year term.

—o—

Dentaline tooth powder, manufactured by Ransom & Randolph Co., Toledo, has been accepted by the American Dental Association and packages of that product are now entitled to carry the association's mark of acceptance.

—o—

Willard P. Tomlinson, who has been in charge of advertising for the Norwich Pharmacal Company, Norwich, N. Y., has resigned. Dr. M. W. Stofer, vice-president, is now directing advertising activities.

—o—

L. L. Dunlap, sales supervisor of the San Diego offices of Procter & Gamble Company, has been transferred to Seattle, Wash., in charge of selling operations in the Northwest territory.

—o—

The Pacific Silicate Co., Berkeley, San Francisco and Los Angeles, has been named exclusive Pacific Coast distributor for Caled Products Co., soaps. Full warehouse stocks will be carried at these points and also at Seattle and Portland. Warren K. Cooley heads Caled Products Co.

—o—

Lehn & Fink, Inc., Bloomfield, N. J., has recently introduced a new 25c size of "Pebeco" tooth paste.

—o—

Gold Dust Corp., New York, is sponsoring the "Silver Dust Serenaders" in a series of tri-weekly broadcasts over eleven eastern stations.

—o—

Woodbury-Reynolds, Inc., has been organized in Newton, Mass., to manufacture tooth powder and other dental supplies.

—o—

U. S. Chemical & Distributing Co., 334 East Oak Street, Louisville, Ky., has recently started operations.

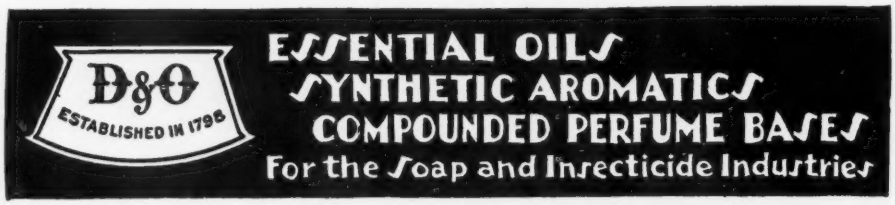
—o—

Pacific Soapers Elect Merrill

F. H. Merrill of the Los Angeles Soap Co., Los Angeles, was elected president of the Pacific Coast Soap Manufacturers Association at its annual meeting held on Feb. 5 at the Palace Hotel, San Francisco. Other officers chosen were Albert Haas of the Newell-Gutradt Co., San Francisco, 1st vice-president; M. Mitchell of Nassour Brothers, Inc., Los Angeles, 2nd vice-president; F. J. Zorn of the North Coast Soap and Chemical Works, Seattle, 3rd vice-president; D. E. O'Brien of the Pacific Soap Co., Ltd., Los Angeles, secretary-treasurer. F. H. Merrill is also a member of the Board of Directors of the Association of American Soap and Glycerine Producers, and of the national Soap Code Authority.

—o—

Soap and soap products are definitely excepted from the Code of the Perfume, Cosmetic, and Toilet Preparations Industry by a special clause in that code.



"D&O" SOAP PERFUMES

can be relied upon

Send us a trial order for

AMBRE TERPENES—$2.75 per pound
Has a high odor value

FIXIRIS "W"—$6.00 per pound
Suitable for white soaps. Powerful and lasting

HONEY FOR SOAP—$2.50 per pound
Has great covering power, very economical

IRALDEL—$3.00 per pound
Methyl Ionone base for soap

TREFANELLE 6604—$1.00 per pound
A new spicy bouquet; good value for soap products

PETRODORS

To mask solvent odors of insecticide sprays, leaving no unpleasant after odor or stain. These products are widely used at prices ranging from 50c per pound upward

OSOLS

Water soluble perfumes for use in theatre sprays, etc.—any odor desired—Pine, Mint, Lavender, Rose, Spice, Oriental, Lilac, Orange Blossom—etc., etc.

Consult our Service Department.

DODGE & OLCOTT COMPANY

180 VARICK STREET NEW YORK, N. Y.

Stocks carried in
CHICAGO, ST. LOUIS, BOSTON, PHILADELPHIA AND LOS ANGELES

"The integrity of the house is reflected in the quality of its products"

RECORD OF TRADE-MARKS

The following trade-marks were published in the January issue of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompanying each notice of opposition.

Trade Marks Filed

APEX FUMICAKE—This in solid letters describing deodorizing cake. Filed by Clean Home Products, Inc., Chicago, Oct. 16, 1933. Claims use since Feb. 1, 1933.

APEX NUGGETS—This in solid letters describing deodorizing crystals. Filed by Clean Home Products, Inc., Chicago, Oct. 16, 1933. Claims use since Feb. 1, 1933.

CAMPANA—This in solid letters describing toilet soap and shaving cream. Filed by Campana Corp., Batavia, Ill., Oct. 30, 1933. Claims use since Oct. 7, 1933.

YANKEE—This in solid letters describing shoe polish. Filed by Yankee Polish Co., New York, Nov. 6, 1933. Claims use since Sept., 1916.

MENTHOSOL—This in solid letters with female head in reverse, describing bath salts. Filed by Menthosol Co., Chicago, July 19, 1933. Claims use since May 16, 1933.

NABZ-IT—This in outlined letters describing rat exterminating preparation. Filed by Timin & Ginsberg, Brooklyn, Oct. 19, 1933. Claims use since June, 1933.

MARVELCONE—This in solid letters describing antiseptic. Filed by Muvietan Prods. Co., Los Angeles, Nov. 2, 1933. Claims use since Aug. 5, 1933.

ORIS—This on reverse plate describing dental cream. Filed by Trade Laboratories, Inc., Newark, Nov. 4, 1933. Claims use since Aug. 31, 1923.

ZENITH—This in solid letters together with stars describing germicide. Filed by Zenith Laboratories, Chicago, Nov. 13, 1933. Claims use since Jan. 1, 1932.

EXTERMICIDE—This in solid letters describing insecticide. Filed by Wilkil Sales Co., Los Angeles, Nov. 17, 1933. Claims use since Oct. 6, 1933.

BRITE-IZE—This in solid letters describing cleanser. Filed by Barnes-Noble Co., Minneapolis, Mar. 25, 1933. Claims use since Mar. 17, 1933.

DREXELL—This in solid letters describing soap and cleanser. Filed by Drexell Products Corp., Brooklyn, Sept. 28, 1933. Claims use since Aug. 16, 1933.

UZIT—This in solid letters describing polish and washing compound. Filed by Uzit Clay Products Co., Chicago, Oct. 27, 1933. Claims use since June 1, 1903.

THREE LITTLE PIGS—This in solid letters describing soap. Filed by Wm. L. Schultz, New York, Nov. 22, 1933. Claims use since Nov. 10, 1933.

OUR LEADER—This in solid letters describing laundry soap. Filed by Los Angeles Soap Co., Los Angeles, Nov. 27, 1933. Claims use since 1903.

NOCA—This in solid letters describing water softener. Filed by Buromin Co., Pittsburgh, May 31, 1933. Claims use since May 9, 1933.

HY-TECH—This in solid letters describing dental powder. Filed by Schwartz Merchandise Corp., New York, June 15, 1933. Claims use since June 15, 1933.

DEN-TELL—This in solid letters describing tooth powder. Filed by Frank G. Boyer, Kansas City, Mo., Oct. 4, 1933. Claims use since September, 1932.

GYNO-SAN—This in script describing antiseptic. Filed by Kent Hygienic Laboratory, Grand Rapids, Mich., Oct. 13, 1933. Claims use since September 15, 1932.

SKETCH OF WELL with signature of "George W. Rockwell" describing insecticides. Filed by Rockwell Laboratories, Kansas City, Mo., Oct. 23, 1933. Claims use since Nov., 1923.

BEAUTYGLO—This in solid letters with sketches of male and female heads describing shampoo. Filed by Martin C. Schwab, Chicago. Nov. 13, 1933. Claims use since Nov. 2, 1933.

FACSIMILE SIGNATURE of "J. A. Case" describing tooth powder. Filed by J. A. Case, Inc., Denver, Nov. 28, 1933.

SILHOUETTE OF WITCH on broom describing cleaning compound. Filed by Kleen Chemical Co., Philadelphia, June 20, 1933. Claims use since July 1, 1932.

DURATONE—This in solid letters describing soap. Filed by Duratone, Inc., Cincinnati, Aug. 25, 1933. Claims use since Aug. 11, 1933.

TRED-KLEEN—This in script describing floor cleaner. Filed by Frank Bownes Co., Chelsea, Mass., Nov. 17, 1933. Claims use since Nov. 3, 1933.

SPRINGTIME IN PARIS—This in script describing toilet soap. Filed by Bourjois, Inc., New York, Nov. 24, 1933. Claims use since Nov. 7, 1933.

ALICE IN WONDERLAND—This in solid letters describing soap. Filed by William L. Schultz, New York, Dec. 1, 1933. Claims use since Nov. 10, 1933.

SMOKERS—This in solid letters with smoking cigarette describing tooth paste. Filed by Scientific Laboratories, Inc., Tampa, Oct. 27, 1933. Claims use since July 1, 1933.

PINOLINE—This in solid letters describing disinfectant,

deodorizer and cleanser. Filed by Fenolene Chemical Co., Jacksonville, Oct. 30, 1933. Claims use since June 1, 1925.

ALPHAZONE—This in solid letters describing germicides and antiseptics. Filed by Federick Stearns & Co., Detroit, Oct. 30, 1933. Claims use since Dec. 21, 1903.

HYRAL—This on reverse plate describing dentifrice. Filed by Hyral Co., Fort Worth, Tex., Nov. 13, 1933. Claims use since Oct. 18, 1933.

FLY-SECT—This in solid letters with sketch of sprayer describing insecticide. Filed by Golden Chemical Co., New York, Nov. 25, 1933. Claims use since Oct. 2, 1933.

PROXATE—This in solid letters describing insecticide and fumigant. Filed by Liquid Carbonic Corp., Chicago, Nov. 27, 1933. Claims use since Sept. 19, 1933.

SLAZALL—This in solid letters describing insecticide. Filed by Skelly Oil Co., Tulsa, Okla., Dec. 12, 1933. Claims use since Dec. 7, 1933.

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Trade Marks Granted

309,193. Cleanser. Lehn & Fink, Inc., Bloomfield, N. J. Filed July 21, 1933. Serial No. 339,973. Published October 31, 1933. Class 4.

309,197. Auto Body Cleaner, Metal Polish, etc. Texas Co., New York. Filed July 12, 1933. Serial No. 339,689. Published October 31, 1933. Class 4.

309,205. Polish and Cleaner. Hyman E. Sherman, Chicago. Filed August 21, 1933. Serial No. 340,908. Published October 24, 1933. Class 16.

309,220. Insecticides and Fungicides. Sherwin-Williams Co., Cleveland. Filed September 11, 1933. Serial No. 341,498. Published October 24, 1933. Class 6.

309,231. Shoe Polish. Progress Corp., Dover, Del. Filed September 6, 1933. Serial 341,376. Published October 31, 1933. Class 4.

309,232. Scouring Powder. Gleam Products Corp., New York. Filed September 6, 1933. Serial No. 341,363. Published October 24, 1933. Class 4.

309,236. Automobile Polish. Chandu Chemical Products Co., Hopewell, Va. Filed August 11, 1933. Serial No. 340,609. Published October 31, 1933. Class 16.

309,238. Insecticides and Herbicides. California Spray-Chemical Corp., Berkeley, Calif. Filed August 10, 1933. Serial No. 340,591. Published October 31, 1933. Class 6.

309,239. Bath Salts and Water Softener. Neptune Trading Corp., New York. Filed August 10, 1933. Serial No. 340,583. Published October 17, 1933. Class 6.

309,259. Cleaning Compound. Ritz Chemical Co. of Newark, New Jersey. Filed August 18, 1933. Serial No. 340,815. Published October 24, 1933. Class 6.

309,275. Tooth Paste. Dr. Hyman's Dental Products Co., Philadelphia. Filed August 9, 1933. Serial No. 340,535. Published October 31, 1933. Class 6.

309,295. Insecticides and Fungicides. National Insecticide Corp., Tallahassee, Fla. Filed March 28, 1933. Serial No. 336,161. Published October 24, 1933. Class 6.

309,310. Cleanser. Dorann Chemical Co., Cincinnati. Filed August 29, 1933. Serial No. 341,117. Published October 24, 1933. Class 4.

309,312. Floor Finish of the Filler Type. Storm Flooring Co., New York. Filed August 29, 1933. Serial No. 341,144. Published October 31, 1933. Class 16.

309,315. Antiseptic. Ayer Co., Lowell, Mass. Filed August 7, 1933. Serial No. 340,464. Published October 17, 1933. Class 6.

309,330. Antiseptic and Mouth Wash. Arbodine, East Port Chester, Conn. Filed July 24, 1933. Serial No. 340,047. Published October 31, 1933. Class 6.

309,339. Cleaning Compounds. Ohio Laboratories, Inc., Columbus, Ohio. Filed August 31, 1933. Serial No. 341,209. Published October 31, 1933. Class 4.

309,346. Non-Lathering Shaving Cream. J. B. Williams Co., Glastonbury, Conn. Filed September 2, 1933. Serial No. 341,312. Published October 24, 1933. Class 4.

309,362. Cleaning and polishing compound. Keene Washing Products Co., Keen, N. H. Filed August 12, 1931. Serial No. 317,896. Published October 31, 1933. Class 4.

309,407. Product for extermination of roaches, ants, mice, rats, moths, beetles, silver fish and bedbugs. Sameth Exterminating Co., New York. Filed May 6, 1933. Serial No. 337,576. Published October 17, 1933. Class 6.

309,414. Insecticide. Socony-Vacuum Specialties, Inc., New York. Filed September 21, 1933. Serial No. 341,776. Published November 7, 1933. Class 6.

309,438. Dentifrice and mouth wash. Denticol Co., New York. Filed August 2, 1933. Serial No. 340,329. Published November 7, 1933. Class 6.

309,445. Soap. Nassour Brothers, Inc., Los Angeles. Filed August 19, 1933. Serial No. 340,858. Published November 7, 1933. Class 4.

309,460. Insecticidal and fungicidal sprays for agricultural purposes. California Spray-Chemical Corp., Berkeley, Calif. Filed June 6, 1933. Serial No. 338,556. Published July 25, 1933. Class 6.

309,464. Cleaning and washing compound. Serene Kleaner Co., Cleveland. Filed July 14, 1933. Serial No. 339,767. Published November 7, 1933. Class 4.

309,496. Soap. Colgate-Palmolive-Peet Co., Chicago. Filed March 21, 1933. Serial No. 335,925. Published November 7, 1933. Class 4.

309,497. Soaps. House of Tre-Jur, Inc., New York. Filed March 23, 1933. Serial No. 336,005. Published November 7, 1933. Class 4.

309,500. Disinfectant, insecticide. Sears, Roebuck and Co., Chicago. Filed March 15, 1933. Serial No. 335,695. Published October 31, 1933. Class 6.

309,504. Insecticides. J. E. Miller Transfer and Storage Co., Wheeling, W. Va. Filed April 29, 1933. Serial No. 337,304. Published October 31, 1933. Class 6.

309,532. Soap powder. Iowa Soap Co., Burlington, Iowa. Filed September 12, 1933. Serial No. 341,519. Published November 7, 1933. Class 4.

309,534. Cleaning preparations. Great Eastern Prod-

ucts Corp., New York. Filed September 8, 1933. Serial No. 341,429. Published November 7, 1933. Class 4.

309,537. Polishing and cleansing powder. Pal Products Co., Brooklyn. Filed September 5, 1933. Serial No. 341,337. Published November 7, 1933. Class 4.

309,542. Deodorizers. Cando Corp., Cambridge. Filed August 30, 1933. Serial No. 341,159. Published October 31, 1933. Class 6.

309,550. Soaps, shaving cream, etc. William Scher, New York. Filed October 6, 1932. Serial No. 331,010. Published November 7, 1933. Class 4.

309,580. Automobile and floor wax polish. Paramount Laboratories, New York. Filed August 17, 1933. Serial No. 340,775. Published November 14, 1933. Class 16.

309,619. Automobile and furniture polish. George H. Deters, New York. Filed September 27, 1933. Serial No. 341,917. Published November 14, 1933. Class 16.

309,783. Soap dispensers. Colgate-Palmolive-Peet Co., Chicago. Filed September 22, 1933. Serial No. 341,787. Published November 21, 1933. Class 13.

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Lever Enjoins Sunlight Infringers

The famous trade-mark "Sunlight" of Lever Brothers, Ltd., was the subject of a recent injunction in the London law courts. Counsel for Lever asked for an injunction restraining Joseph Strother and P. Schroder (known as "Wright") from infringing the firm's registered trademark "Sunlight" and from passing off their goods as and for the goods of the plaintiffs. The case was previously headed by Justice Sir Trustram Eve who granted an ex parte injunction against both defendants. Counsel for Strother said his client was willing to agree to a perpetual injunction not to infringe the trade-mark.

Lever said that since 1886 the trade-mark had applied to a large class of soaps and had been registered in nearly every country in the world. In addition, the firm carries on an extensive trade in "Vim" cleaning and polishing powders. Last October it began to receive letters from customers stating that powders were being sold by canvassers in canisters bearing the word "Sunlight" and "S.K. Products, London and Portsmouth, contractors to the London County Council." Inquiries failed to trace any such firm, but revealed that the canvassers were employed by Schroder, who obtained his supplies from Strother.

—o—

The index number of employment in the soap industry stood at 106.9 in December, 1933, as compared with 112.1 in November and 94.5 in December, 1932, according to figures compiled by the U. S. Dept. of Labor. The twelve-month average for 1926 is taken as 100 in computing the indices. The pay-roll index registered 88.2 for December, 1933, as against 91.6 in November and 79.2 in December, 1932.

—o—

E. R. Squibb & Sons of Canada, Ltd., plan an extensive advertising campaign for 1934, the budget having been increased by more than 125%.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

815 15th St., N. W., Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 1,938,560. Drain Pipe Cleaning Composition. Patented December 5, 1933, by Oliver W. Hunter, Los Angeles, Calif., assignor of one-half to Robert A. Northcott, Los Angeles, Calif. A drain pipe cleaning composition comprising caustic alkali, aluminum particles, and free particles of aromatic vegetable matter being intermixed in a dry state, the particles of vegetable matter being in such proportions relative to the caustic alkali and aluminum particles that on subjecting the composition to the action of water the liberated fumes will be rendered fragrant and non-irritating.

No. 1,938,585. Disinfectant. Patented December 12, 1933, by William L. Estabrooke, Yonkers, N. Y. A disinfectant which is the reaction product of a urea and a heavy metal salt.

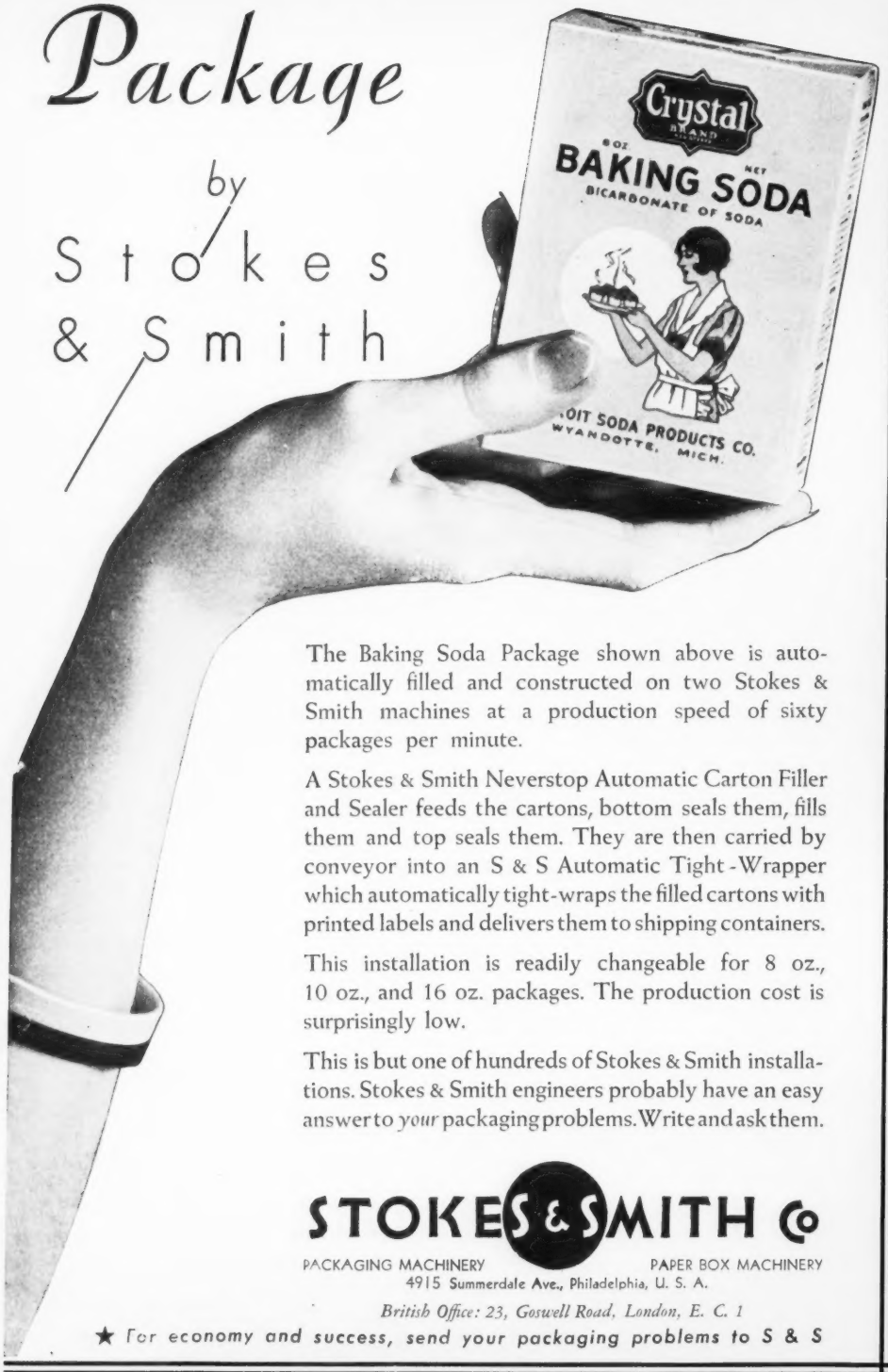
No. 1,938,652. Horticultural Spray. Patented December 12, 1933, by Amo E. Badertscher, Baltimore, Md., assignor to McCormick & Company, Inc., Baltimore, Md. A horticultural spray including pine oil, an insecticide and dipentene, the dipentene being present in amount in excess of the amount normally present in pine oil and in quantity sufficient to substantially negative the tendency of the pine oil to burn foliage.

No. 1,940,558. Cleaning Composition, Patented December 19, 1933, by Charles G. Moore, Lakewood, Ohio, assignor to The Glidden Company, Cleveland, Ohio. A non-saponaceous hand-cleaning composition, comprising a liquid mixture of toluol, butanol, butyl acetate, ethyl acetate, and one-half to one pound of lanolin per gallon of such liquid.

No. 1,940,646, Insecticide. Patented December 19, 1933, by Dudley H. Grant, New York, N. Y., assignor to Standard Oil Development Company. An insecticide or insect repellent containing an insecticidal oleoresin of pyrethrum and an oil soluble alkali metal salt of sulfonic acid derived from petroleum.

No. 1,940,688. Cleaning Fluid. Patented December 26, 1933, by Arnold Mohn, St. Louis., assignor to Rhodes-Perry-Martin, Inc., St. Louis, Mo. A cleaning fluid composed of ethylene dichloride and carbon tetrachloride in relative quantities substantially in inverse proportion to their latent heats of vaporization.

Package by Stokes & Smith



The Baking Soda Package shown above is automatically filled and constructed on two Stokes & Smith machines at a production speed of sixty packages per minute.

A Stokes & Smith Neverstop Automatic Carton Filler and Sealer feeds the cartons, bottom seals them, fills them and top seals them. They are then carried by conveyor into an S & S Automatic Tight-Wrapper which automatically tight-wraps the filled cartons with printed labels and delivers them to shipping containers.

This installation is readily changeable for 8 oz., 10 oz., and 16 oz. packages. The production cost is surprisingly low.

This is but one of hundreds of Stokes & Smith installations. Stokes & Smith engineers probably have an easy answer to *your* packaging problems. Write and ask them.

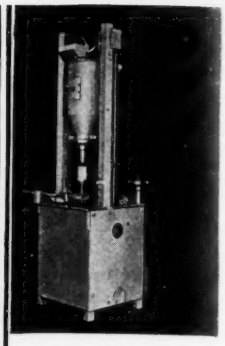
STOKES & SMITH Co

PACKAGING MACHINERY — PAPER BOX MACHINERY

4915 Summerdale Ave., Philadelphia, U. S. A.

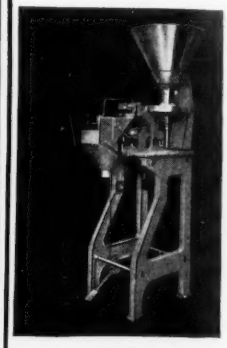
British Office: 23, Goswell Road, London, E. C. 1

★ For economy and success, send your packaging problems to S & S



UNIVERSAL FILLER

For any powder, granular product or paste. Fills by gross weight, volumetric measurement or packing. Speed: 15-30 units per minute.

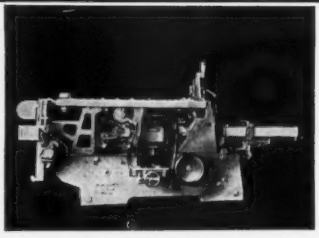


CONVEYOR NET WEIGHT SCALE

For nuts in shell, hard candies, flaked products, etc. Fills by net weight. Speed: 15-25 units per minute.

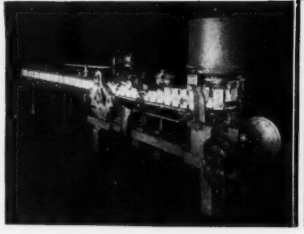
AUTOMATIC TIGHT-WRAPPER

For all food and grocery products. Automatically tight-wraps carton with printed label. Speed: 60-70 units per minute.



NEVERSTOP FILLER & SEALER

For all grocery products in cartons. Feeds cartons, bottom seals, fills, top seals. Speed: 40-75 units per minute.



VOLUMETRIC FILLER

For salted and shelled nuts, tea, whole spices, flaked cereals, etc. Fills by volumetric measurement. Speed: 20-30 units per minute.

CONTRACTS AWARDED

John T. Stanley Co., New York, has been awarded contracts for 100,000 lbs. washing soda at a price of 1.74c and 18,000 lbs. laundry soap at 4.975c for supply to the Brooklyn U. S. Army Quartermaster.

—o—

Peck's Products Co. has been awarded contracts as follows for supply of materials to the U. S. Post Office Department, Washington: 100 10-pound cans of automobile soap, 5.15 cents; 35 50-pound cans, 3.93 cents; 8 250-pound cans, 2.91 cents; and 4 500-pound cans, 2.69 cents.

—o—

Republic Creosote Co., Mobile, Ala., has been awarded a contract for 10,000 gallons of creosote oil for supply to the U. S. Engineer, New Orleans, at a price of $1,200.

—o—

Sharp & Dohme, Inc., have been awarded a contract to supply the Veterans' Bureau, Washington, with a quantity of fluid extract of squill at a price of $157,505.

—o—

Arctic Bear Laboratories awarded contracts for 20,000 tubes shaving cream for Brooklyn U. S. Army Quartermaster at a price of 6.75c and 20,000 tubes at 6.5c. Geo. E. Marsh Co. awarded 20,000 cakes toilet soap at $.0089 and 20,000 cakes at $.0099. Parke, Davis & Co. awarded 40,000 tubes tooth paste at 7.5c.

—o—

Harshaw Chemical Co., Philadelphia, has been awarded a contract for 5,000 lbs. naphthalene flakes for Philadelphia U. S. Army Quartermaster at a price of 6c. Conray Products Co., New York, awarded 5,000 lbs. at a figure of 5.87c.

—o—

Bids have been entered as follows on the supply of 5,000 cakes of soap to the Procurement Division, Branch of Supply, Washington. Prices are f.o.b. Washington and f.o.b. works, respectively: Armour & Co., 8.89c and 7.7c, 7.78c and 6.89c, 11.11c and 9.33c; 8.36c and 7.64c lb.; Austin Nichols & Co., 14.4c and 14.4c; Colgate-Palmolive-Peet Co., 16.8c, 12.8c and 10.4c, f.o.b. Washington; Newell-Gutradt Co., 6.696c and 5.553c; Kirkman & Son, 7.1c and 6.6c; Procter & Gamble Distributing Co., 9.2c and 8.56c; Swift & Co., 5.82c and 5.33c.

—o—

The Brooklyn naval supply depot of the U. S. Bureau of Navigation has recently been conducting a series of tests of soaps and cleansers used on various ships for laundry purposes. It was recommended after the tests that only neutral laundry soap be used, with the addition of a certain amount of modified soda where necessary. Soap and alkaline mixtures were described as too costly and too alkaline. A list of approved soaps and sodas was drawn up with a provision for addition of acceptable brands to the list following testing.

—o—

New Spanish Soap Regulations

The "Gaseta de Madrid" has published a Decree of the Government prescribing regulations regarding the manufacture and sale of soap in Spain. From February 1, 1934, all common soap and soap flakes must contain not less than 40 per cent of fatty or resinous acids and must be clearly stamped showing the percentage of such acids contained therein. This provision does not apply to toilet and medicinal soaps, soft soap, and soaps with a basis of potash. Soap flakes and powders must not be sold in bulk, but with an indication on the packet as to the percentage of fatty or resinous acids contained therein. All common soaps, other than castile, soap powders, soft soap, or soap with a potash basis must contain at least 2 per cent of resin.

—o—

Reginald Henry Windsor, soap manufacturer of West Dulwich, England, was recently sentenced to nine months' imprisonment in London for obtaining £300 ($1,500) by false pretences with intent to defraud and two offenses under the Bankruptcy Act, charges to which he pleaded guilty. Windsor, an undischarged bankrupt, took on travelers for a soap business which he bought in March, 1933, when it was insolvent. He induced these men to deposit in all £1,000 and failed to return their money.

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P & G Six Months Net $7,107,517

Procter & Gamble Company reports net earnings of $7,107,517 for the six months ended December 31, which was equal to $1.03 a share on the outstanding common shares. This compared with $4,621,700, or 64 cents a share, in the first half of 1932. For the December quarter the earnings were equal to 39 cents a common share as against 64 cents a share in the preceding quarter.

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A meeting of the American Section of the Society of Chemical Industry will be held on Friday, February 16th at 7:30 P. M. at The Chemists' Club, New York City. The meeting will be devoted to an address by Prof. Donald B. Keyes of the University of Illinois.

Market Report on

ESSENTIAL OILS AND AROMATICS

(*As of February 7, 1934*)

NEW YORK—The market for essential oils and aromatic chemicals continued to exhibit a stable tone this period, prices having been steadied by the elimination of exchange fluctuations which resulted from fixation of the price of gold at $35 per ounce. The weakness of the franc apparent over the past few days has not yet had an opportunity to exert any effect on prices of imported essential oils, although if the franc continues to slump it is quite apparent that quotations on imported oils will have to respond by giving up some of the ground gained over recent months. Local suppliers report a substantial increase in business since the first of the year, with sales showing a sharp increase over the corresponding period of 1933.

Anise Oil

With silver exchange holding steady over the past month, quotations on Anise Oil have been firmly maintained at 42 to 45c lb.

Citronella Oil

Quotations on replacement stocks held firm this period, although there was reported to be some tendency to shade spot prices due to competition among local suppliers who are reported to be holding substantial quantities of unsold stocks. The range on Java oil is 45 to 48c and on Ceylon oil 38 to 39c.

Geranium Oil

Quotations held firm on both African and Bourbon geranium which have advanced rather sharply over recent months. There was some indication that replacement stocks might be available at lower figures, but until new crop oil starts to come in the situation seems liable to continue firm due to narrow spot stocks.

Lavender Oil

Prices show no weakening tendency on this oil as stocks both here and abroad are generally admitted to be light. Further than this, new crop reports give little indication that any substantial replenishment can be expected.

Sassafras Oil

One of the few price changes of the period occurred in the price of artificial sassafras which advanced 3c to a basis of 28c to 29c. Raw material costs have advanced recently, and with further interest shown by consumers, the advance was inevitable.

Percy C. Magnus, president of Magnus, Mabee & Reynard, Inc., New York, has been re-elected president of the New York Board of Trade and will serve a second term.

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A new building has just been added to the others on the factory grounds of Dodge & Olcott Company in Bayonne, N. J. It is stated that expansion in the manufacture of aromatics necessitated the increase in factory facilities.

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A new synthetic vetivert is being offered by Givaudan-Delawanna, Inc., New York, as a means of cutting the cost of vetivert odors, the price of the natural oil having more than doubled during the past year. For cheaper soaps, its use in full in place of the oil is suggested and for the more expensive products, substitution for the natural up to 50 per cent.

—o—

Felton Opens Coast Office

A branch plant and sales office will shortly be opened in Hollywood by Felton Chemical Co., Brooklyn, in charge of Albert Albek who for the past eight years has been secretary and sales manager of the company. Manufacturing operations will be in charge of William M. Pauer who has represented Felton in this locality for the past two years. The following states will be served directly from the Los Angeles office: California, Oregon, Washington, Idaho, Montana, Utah, Nevada, Arizona, New Mexico, Colorado and Wyoming, as well as El Paso, Texas. Besides carrying a complete stock of Felton aromatics, Mr. Albek will import directly to the coast in his own name a full line of essential oils. He will also represent suppliers of lanolin, beeswax, gums, colors, etc. The San Francisco branch of the Felton Chemical Co. will continue under the direction of Dr. A. Doremus.

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Budd Aromatic Represents Polak & Schwarz

Budd Aromatic Chemical Co., New York, is now acting as exclusive agent in United States for Polak & Schwarz's Essence-Fabrieken, Zaandam, Holland, aromatics. Besides handling the Polak & Schwarz line the Budd organization will continue to manufacture perfuming specialties of its own under the direction of William H. Dunney, Jr., chief chemist. Budd Aromatic Chemical Co. has been operating since 1931, the two principals being Ivon H. Budd and Harold L. Bishop. Associated with the company in an official capacity will be J. A. J. Wynmalen of the staff of Polak & Schwarz.

Market Report on

SOAP AND DISINFECTANT CHEMICALS

(*As of February 7, 1934*)

NEW YORK—Activity picked up in the market for soap and disinfectant chemicals over the close of the month, as consumers began to find it necessary to replenish stocks which had been built up before the year-end on last year's contracts. A good demand for alkalis was noted, with the soap industry responsible for substantial purchases. Rosin quotations advanced moderately, as did those for pyrethrum flowers. Quotations on cresol, U. S. P., were distinctly firmer.

Alkalis

Alkali withdrawals picked up considerably during the month, as buyers began to find it necessary to replenish stocks. Production continued at a high rate in the soap industry, with the result that there was considerable demand for alkalis from this group.

Glycerin

The glycerin market was distinctly stronger this period, with sellers citing higher production costs as justification for their increased demands. Soap makers' raw material costs as well as their labor costs have increased substantially over the past few months, and only the substantial quantities of imported glycerin on the market have kept glycerin prices as low as they are at present.

Pyrethrum

There were reports during the period of lower prices on Japanese flowers, but these could not be confirmed with the recognized sources of supply. The price of first grade flowers continued to be firmly maintained at 34 to 36c lb.

Rosin

Rosin prices were advanced twenty-five to thirty cents a barrel this period, the market being given a firm tone by a continued decrease in receipts and consequent reduction in stocks which are now substantially under their level of a year ago. Another strengthening factor is the recent approval of the naval stores marketing agreement which will put the industry in a stronger competitive position.

——o——

A prospective purchaser is interested in locating the manufacturer of the *Spontax* powdered soap dispenser. The publishers of *Soap* will appreciate receiving the name and address of this concern so they may be passed along to the interested party.

"U. S. Government Standard" as an advertising phrase will be discontinued by a corporation manufacturing soaps and cleaners so as no longer to imply erroneously that its product has been endorsed by a Government department.

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Radio Advertising Notes

The Colgate-Palmolive-Peet Company advertising stars, "Clara, Lue 'n' Em," who present a weekly program featuring Super Suds, completed their third year of radio broadcasting, January 27 . . . . Plough, Inc., Memphis, soaps and cosmetics, are sponsoring a new program on an expanded NBC network, featuring Vincent Lopez and his orchestra . . . . One the "Ipana Troubadour" program of Bristol-Myers Co., Florence Desmond, impersonator of motion picture stars, was the guest artist, January 31 . . . . On Lehn & Fink's "Hall of Fame" program, January 14, Lily Pons, famous coloratura soprano, was guest artist.

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According to a recent survey made by Edwin B. Houghton, special representative in Florida and Georgia for Magnus, Mabee & Reynard, Inc., New York, essential oils, business conditions are now greatly improved. He reports that many of the people who have been out of work for two or more years, are now again employed; retail shops report an increase in business, and old accounts are being reduced.

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Trisodium Phosphate Detergents

(*From Page 26*)

machinery. It is claimed that by interchange of radicals, the corresponding heavy metal phosphates and sodium soaps are formed, with a resultant detergent action primarily due to the soap.

The detergent properties of trisodium phosphate have been discussed in detail elsewhere. In passing, it may be mentioned that an expert in the field rates it high as to wetting power, although not as high as sodium metasilicate,—high in emulsifying and deflocculating power, and in the degree of alkalinity. He rates it low only in total neutralizing value, a property which is important only when a maximum of acid soil is to be removed. The remarkable emulsifying and deflocculating power of the salt cannot be explained on the basis of its chemical composition. In fact, no satisfactory explanation is available. The compounder naturally is much more interested in the fact that it has such properties than in the reason why. Everything considered, trisodium phosphate has probably been the basis or more detergent compounders' fortunes than has any other individual ingredient.

for YOUR PRIVATE LABEL

SPECIAL CLEANSERS

Our list includes the most efficient cleanser compounded for your particular trade.

SUPER ALKALIES

These are products which are adapted for special uses where stronger alkalies are required.

SNOWFLAKE CRYSTALS

The accepted base for quality bath crystals.

SCOURING COMPOUND

An effective abrasive product for cleaning floors, marble, etc.

PARADICHLOROBENZENE

This exceptionally pure product is an excellent deodorant and moth preventive.

ORTHODICHLOROBENZENE

For insecticide sprays and metal polishes.

PUT Solvay quality into your packages and get more out of your private brand. Write for Booklet SC7 for particulars on products for your special trade.

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Company

61 BROADWAY NEW YORK

SOLVAY PRODUCTS

RED OIL

STEAR-IC ACID

TALLOWS

Controlled Production:—

We collect, render and refine all of the raw materials used in our stearic acid and red oil. This close control, not available in any other brand, insures high quality products by eliminating low grade raw materials. Let us submit samples and prices. There is no substitute for quality. Use them in your

Dry Cleaning Soaps

Shaving Soaps

Special Cleaners

Polishes

Liquid Soaps

FANCY - EXTRA and SPECIAL

TALLOW

Fatty Acids

Theobald Animal By-Products Refinery

KEARNY, N. J.

ESTABLISHED 1914

Market Report on

TALLOW, GREASES AND OILS

(*As of February 7, 1934*)

NEW YORK—The principal feature attracting attention in the market for soapmaking oils, fats and greases this period was the prospect of a prohibitive excise tax being imposed on coconut oil which would obviously involve extremely serious consequences for the soap industry. The tax discussion had no effect on price of this oil as, if it was imposed, it would affect both import and domestic stocks equally, giving no present incentive for building up stocks. During the period there were a number of scattered advances in domestic oils, the commodity markets all responding to the dollar devaluation announcement.

Coconut Oil

The possibility of imposition of a five cent excise tax resulted in an increase in the number of inquiries on coconut oil this period, but purchases showed no apparent gain and prices did not change. New York tanks of Manila oil are quoted currently at 2¾c lb.

Corn Oil

Corn oil shared in the bull movement of stocks and commodities this period, rising a half-cent to a basis of 3¾c to 4c lb. for mill tanks.

Cottonseed Oil

Cottonseed oil also participated in the advance this period, rising fractionally to a basis of 3¾c lb. Dollar devaluation gave the price of cottonseed oil an upward push, and another factor was the threat of the excise tax on coconut oil, which, if put into effect, would improve the competitive position of cottonseed oil in a number of industries.

Lard

With competing products moving higher and quotations on lard futures being raised, the price of cash lard advanced this period in spite of rather liberal receipts. Current market, 5¾c to 6c lb.

Tallow

Tallow eased off fractionally this period in spite of the report of the proposed tax on coconut oil, which, if adopted, should improve the competitive position of tallow. City extra is quoted currently at 2⅞c lb., with special at 2¾c.

—o—

Fergusson Drug Co., Philadelphia, reports increased demand for its "Alexyl" which has recently been reduced in price.

A code has been presented to the National Recovery Administration by the Laundry & Cleaners Allied Trades Association, New York, composed of firms who sell supplies to laundry owners and dry cleaners. NRA officials stated that they felt no precedent existed for a distributors' code built around but two customers.

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Alsop Engineering Corp., New York, liquid processing equipment, has added an additional 10,000 square feet of floor space to take care of expanding business requirements.

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Stocks of crude cottonseed oil on hand in United States as of Dec. 31, 1933, totaled 168,849,941 lbs. as compared with 143,902,011 lbs., Dec. 31, 1932. Stocks of refined oil were 769,234,854 lbs., Dec. 31, 1933, as against 730,495,676 lbs., Dec. 31, 1932.

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J. Eavenson & Co. was low bidder on 4,200 lbs. soap powder for the U. S. Treasury Dept., Washington, in a recent bidding, with a quotation of 1.81c lb.

—o—

Confirm C-P-P Removal to Jersey City

The proposed removal of the Colgate-Palmolive-Peet executive offices from Chicago to Jersey City, reported in the January issue of *Soap*, has been confirmed by an official announcement by S. Bayard Colgate, president of the company. The move is expected to be completed by April 1. The branch accounting and sales offices, occupying the thirteenth floor of the Palmolive Building, will remain in Chicago. The balance of the offices to be moved occupied about 11 per cent of the Chicago space. A two-story addition is under construction at the Jersey City offices to house the main offices. In making his announcement Mr. Colgate stated that the move was being made to lower the company's overhead expense and to increase its efficiency.

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Soap Code Rulings

(*From Page 31*)

finally approved by the NRA. If we have obtained the right to use the Blue Eagle under the Soap and Glycerine Code and do nothing to conflict with codes subsequently approved, do we automatically retain the right to use the Blue Eagle, or do we lose the right each time a new code applicable to our products is approved until we have definitely signed an assent and certificate of compliance with it?

Answer: Your particular question falls into what is termed a classification problem decision on which must be made by the NRA. Your letter has been forwarded to the administration member of the soap and glycerine industry for such action as may be necessary.

STAUFFER CHEMICALS

for Soaps *and* Cleaners

Caustic Soda

"STAUFFER BRAND" Caustic Soda can be supplied either solid or liquid, in drums or tank cars. It is uniform, pure and worth while using in your soap products. Send your next Caustic Soda inquiry to us.

Carbon Tetrachloride

"STAUFFER BRAND" Carbon Tetrachloride will make a good cleaner better. It is 99.9% pure, the purest obtainable anywhere, is water white and is absolutely free from residue or residual odor. May we work with you when you are next in the market? Let us submit samples and prices. Anything from a drum up.

May we estimate on your requirements?

STAUFFER CHEMICAL COMPANY

Plants
Niagara Falls, N. Y.
Los Angeles, Cal.

Office
420 Lexington Ave.
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SHERKA

CAMPHOR
SYNTHETIC
MADE FROM AMERICAN TURPENTINE

Terpineol, C. P.
WATER WHITE

Menthol Crystals
SYNTHETIC

Thymol, U. S. P.
PRIME WHITE CRYSTALS

NRA WE DO OUR PART

PRODUCTS OF SCHERING-KAHLBAUM, A. G., BERLIN

SHERKA CHEMICAL CO. INC.
75 WEST STREET · NEW YORK
TELEPHONE · BOWLING GREEN 9-7482

CURRENT PRICE QUOTATIONS

As of February 7, 1934

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums	lb.	.08½	.10
Acid, Boric, bbls., 99½%	ton	95.00	100.00
Cresylic, 97% dk., drums	gal.	.42	.45
97-99%, pale, drums	gal.	—	.45
Oxalic, bbls	lb.	.11	.11¼
Adeps Lanae, hydrous, bbls	lb.	.14	.15
Anhydrous, bbls	lb.	.15	.16
Alcohol, Ethyl, U. S. P., bbls	gal.	2.45	2.59
Complete Denat., No. 5, drums., ex.	gal.	.34	.42
Alum. Potash lump	lb.	.03	.03¼
Ammonia Water, 260, drums, wks	lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls	lb.	.08	.12½
Bleaching Powder, drums	100 lb.	1.75	2.35
Borax, pd., cryst., bbls., kegs	ton	50.00	55.00
Carbon Tetrachloride, car lots	lb.	—	.05¼
L. C. L.	lb.	.06	.08½
Caustic, see Soda Caustic, Potash Caustic			
China Clay, filer	ton	10.00	25.00
Cresol, U. S. P., drums	lb.	.09	.10
Creosote Oil	gal.	.11½	.12½
Feldspar (200 to 325 mesh)	ton	14.00	15.50
Formaldehyde, bbls	lb.	.06	.07
Fullers Earth	ton	15.00	24.00
Glycerine, C. P., drums	lb.	.11½	.11¾
Dynamite, drums	lb.	—	.10¾
Saponification, drums	lb.	.07	.07¼
Soaps, Lye, drums	lb.	.06¾	.07
Hexalin, drums	lb.	—	.30
Kieselguhr, bags	ton	—	35.00
Lanolin, see Adeps Lanae.			
Lime, live, bbls	per bbl.	1.70	2.20
Mercury Bichloride, kegs	lb.	.93	1.08
Naphthalene, ref. flakes, bbls	lb.	.06	.07¼
Nitrobenzene (Myrbane) drums	lb.	.09½	.11
Paradichlorbenzene, bbls., kegs	lb.	.16	.25
Paraformaldehyde, kegs	lb.	.38	.39
Petrolatum, bbls. (as to color)	lb.	.01⅞	.06¾
Phenol, (Carbolic Acid), drums	lb.	.14¼	.16
Pine Oil, bbls	gal.	.59	.65
Potash, Caustic, drums	lb.	.07⅛	.07½
Flake	lb.	.08	.08¼
Potassium Bichronate, casks	lb.	.08⅛	.08⅝
Pumice Stone, powd	100 lb.	2.50	4.00
Rosins (600 lb. bbls. gross for net)—			
Grade B to H, basis 280 lbs	bbl.	4.75	5.80
Grade K to N	bbl.	5.85	5.85
Grade WG and WW	bbl.	5.95	6.30
Wood	bbl.	5.08	5.31
Rotten Stone, pwd. bbls	lb.	.02½	.04½
Silica, Ref., floated	ton	18.00	22.00
Soap, Mottled	lb.	.04⅛	.04⅜
Olive Castle, bars	lb.	.09	.12
powder	lb.	.17	.22
Olive Oil Foot	lb.	.04½	.06
Powdered White, U. S. P.	lb.	.16	.20
Green, U. S. P.	lb.	.06½	.08
Tallow Chips	lb.	.06	.06½
Whale Oil, bbls	lb.	.05	.06
Soda Ash, contract, wks, bags, bbls.	100 lb.	1.23	1.50
Car lots, in bulk	100 lb.	—	1.05
Soda Caustic, Cont., wks., sld	100 lb.	—	2.60
Flake	100 lb.	—	3.00
Liquid, tanks	100 lb.	—	2.25
Soda Sal., bbls	100 lb.	1.10	1.35
Sodium Chloride (Salt)	ton	11.40	14.00
Sodium Fluoride, bbls	lb.	.07½	.09¼
Sodium Hydrosulphite, bbls	lb.	—	.22
Sodium Silicate, 40 deg., drum	100 lb.	—	.80
Drums, 60 deg. wks	100 lb.	—	1.65
In tanks, 15c. less per hundred, wks.			
Tar Acid Oils, 15-25%	gal.	.20	.24
Trisodium Phosphate, bags, bbls	lb.	.03	.0355
Zinc Oxide, lead free	lb.	.06	.06¼
Zinc Stearate, bbls	lb.	.18	.19

Oils—Fats—Greases

Castor, No. 1, bbls	lb.	.10¼	.11
No. 3, bbls	lb.	.09¾	.10½
Coconut			
Ceylon, Coast Tanks	lb.	.02⅛	.02⅝
Cochin, barrels, N. Y	lb.	.04½	.04⅝
Manila, tanks, N. Y	lb.	.02¾	.02⅞
Tanks, Pacific coast	lb.	.02½	.02¾
Cod, Newfound, bbls	gal.	.40	Nom.
Copra, bulk, Coast	lb.	...	.0135
Corn, tanks, mills	lb.	.03¾	.04
Bbls., N. Y	lb.	.04¾	.04⅞
Cottonseed, crude, tanks, mill	lb.	.03⅝	.03¾
PSY	lb.	—	Nom.
Degras, Amer., bbls	lb.	.02¾	.04
English, bbls	lb.	.03¾	.04
German, bbls	lb.	.03½	.03¾
Neutral, bbls	lb.	.07	.08½
Greases, choice white, bbls., N. Y	lb.	.03	.03½
Yellow	lb.	.02½	.02⅝
House	lb.	.02½	.02⅝
Lard, prime, steam, tierces	lb.	.05¾	.06
Compound tierces	lb.	.07	.07¼
Lard Oil,			
Extra, bbls	lb.	—	.07¾
Extra, No. 1, bbls	lb.	—	.07½
No. 2, bbls	lb.	—	.06½
Linseed, raw, bbls., spot	lb.	.0930	.0970
Tanks, raw	lb.	—	.0870
Boiled, 5 bbls. lots	lb.	—	.1050
Menhaden, Crude, tanks, Balt	gal.	.15	.17
Oleo Oil, No. 1, bbls., N. Y	lb.	—	.06⅛
No. 2, bbls., N. Y	lb.	—	.05⅜
Olive, denatured, bbls., N. Y	gal.	.82	.86
Foots, bbls., N. Y	lb.	.06½	.06⅝
Palm	lb.	.03½	.03¾
Palm Kernel, casks, denatured	lb.	.04¼	Nom.
Peanut, domestic tanks	lb.	.04	Nom.
Red Oil, distilled, bbls	lb.	.07	.07⅝
Saponified, bbls	lb.	.07	.07⅝
Tanks	lb.	—	.06
Soya Bean, domestic tanks, N. Y	lb.	—	.06
Stearic Acid			
Double pressed	lb.	.09½	.10
Triple pressed, bgs	lb.	.12¼	.12¾
Stearine, oleo, bbls	lb.	.05	.05¼
Tallow, special, f. o. b. plant	lb.	—	.02¾
City, ex. loose, f. o. b. plant	lb.	—	.02⅞
Tallow, oils, acidless, tanks, N. Y	lb.	—	.06¾
Bbls., c/l, N. Y	lb.	—	.07¼
Whale, crude	lb.	.03½	.04
refined	lb.	.06¾	.07

Importers ***Dealers*** ***Brokers***

Olive Oil Foots
Commercial Olive Oil
Winter Yellow Cottonseed Oil
Prime Summer Yellow Cottonseed Oil
Stearic Acid • Red Oil • White Olein

WELCH, HOLME & CLARK COMPANY, INC.
Established 1838
563 Greenwich Street **New York City**

We have been supplying raw materials to the Soap and Allied Industries for 95 years.

GERANIOL for SOAP

In various grades to meet every requirement as to price

A. M. TODD COMPANY
KALAMAZOO, MICH.

Business established in 1869

As of February 7, 1934

Essential Oils

Almond, Bitter, U. S. P.	lb.	$2.00	$2.50
Bitter, F. F. P. A.	lb.	2.25	2.75
Sweet, cans	lb.	.60	.65
Anise, cans, U. S. P.	lb	.42	.45
Apricot, Kernel, cans	lb.	.21	.26
Bay, tins		1.30	1.70
Bergamot, coppers	lb	1.50	1.90
Artificial	lb.	1.00	1.10
Birch Tar, rect., tins	lb.	.50	.55
Crude, tins	lb.	.13	.14
Bois de Rose, Brazilian	lb.	1.25	1.30
Cayenne	lb.	2.50	2.90
Cade, cans	lb.	.26	.28
Cajuput, native, tins	lb.	.50	.60
Calamus, tins	lb.	3.25	3.50
Camphor, Sassy, drums	lb.	.15	.17
White, drums	lb.	.16	.18
Cananga, native, tins	lb.	2.00	2.05
Rectified, tins	lb.	2.50	2.55
Caraway Seed	lb.	1.90	2.25
Cassia, Redistilled, U. S. P.	lb.	1.20	1.25
drums	lb.	—	1.10
Cedar Leaf, tins	lb.	.65	.70
Cedar Wood, light, drums	lb.	.28	.30
Citronella, Java, drums	lb.	.45	.48
Citronella, Ceylon, drums	lb.	.38	.39
Cloves, U. S. P., cans	lb.	.95	.96
Eucalyptus, Austl., U. S. P., cans	lb.	.26	.27
Fennel, U. S. P., tins	lb.	1.10	1.30
Geranium, African, cans	lb.	6.00	7.50
Bourbon, tins	lb.	5.75	6.75
Hemlock, tins	lb.	.65	.75
Lavender, U. S. P., tins	lb.	2.25	5.50
Spike, Spanish, cans	lb.	.78	.83
Lemon, Ital., U. S. P.		1.00	1.40
Lemongrass, native, cans	lb.	1.00	1.10
Linaloe, Mex., cases	lb.	1.15	1.25
Nutmeg, U. S. P., tins	lb.	1.20	1.35
Orange, Sweet, W. Ind., tins	lb.	1.40	1.50
Italian cop	lb.	1.20	1.70
Distilled	lb.	.55	.60
Origanum, cans, tech	lb.	.25	.50
Patchouli	lb.	2.75	3.00
Pennyroyal, dom	lb.	2.00	2.05
Imported	lb.	1.35	1.70
Peppermint, nat., cases	lb.	2.40	2.65
Redis., U. S. P., cases	lb.	2.70	2.95
Petit Grain, S. A. tins	lb.	1.25	1.30
Pine Needle, Siberian	lb.	.72	.80
Rose, Natural	oz.	5.50	18.00
Artificial	oz.	2.00	3.00
Rosemary, U. S. P., tins	lb.	.32	.38
Tech., lb. tins	lb.	.28	.30
Sandalwood, E. Ind., U. S. P.	lb.	5.75	6.00
Sassafras, U. S. P.	lb.	.75	1.00
Artificial	lb.	.28	.29
Spearmint, U. S. P.	lb.	1.10	1.30
Thyme, red, U. S. P.	lb.	.50	.80
White, U. S. P.	lb.	.80	1.00
Vetivert, Bourbon	lb.	6.50	8.50
Java	lb.	16.00	20.00
Ylang Ylang, Bourbon	lb.	4.60	7.00

Aromatic Chemicals

Acetophenone, C. P.	lb.	$1.50	$2.25
Amyl Cinnamic Aldehyde	lb.	3.50	4.25
Anethol	lb.	1.00	1.10
Benzaldehyde, tech	lb.	.60	.65
U. S. P.	lb.	1.10	1.30
Benzyl, Acetate	lb.	.60	1.00
Alcohol	lb.	.75	1.15
Citral	lb.	1.90	2.20
Citronellal	lb.	2.25	2.50
Citronellol	lb.	2.30	3.00
Citronellyl Acetate	lb.	4.50	7.00
Coumarin	lb.	3.10	3.30
Cymene, drums	gal.	.90	1.25
Diphenyl oxide	lb.	1.05	1.25
Eucalyptol, U. S. P.	lb.	.55	.65
Eugenol, U. S. P.	lb.	2.00	2.50
Geraniol, Domestic	lb.	1.25	2.00
Imported	lb.	2.00	3.00
Geranyl Acetate	lb.	2.50	4.00
Heliotropin	lb.	1.85	2.10
Hydroxycitronellal	lb.	3.50	9.00
Indol, C. P.	oz.	2.00	2.50
Ionone	lb.	3.60	6.50
Iso-Eugenol	lb.	3.00	4.25
Linalool	lb.	1.65	2.25
Linalyl Acetate	lb.	3.00	4.25
Menthol	lb.	3.50	3.60
Methyl Acetophenone	lb.	2.50	3.00
Anthranilate	lb.	2.15	3.20
Paracresol	lb.	4.50	6.00
Salicylate, U. S. P.	lb.	.40	.45
Musk Ambrette	lb.	5.75	6.00
Ketone	lb.	6.25	6.50
Moskene	lb.	5.00	6.00
Xylene	lb.	2.00	2.50
Phenylacetaldehyde	lb.	4.00	6.50
Phenylacetic Acid, 1 lb., bot	lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot	lb.	4.25	4.50
Rhodinol	lb.	5.75	8.00
Safrol	lb.	.28	.30
Terpineol, C. P., 1,000 lb. drs	lb.	.33	.35
Cans	lb.	.36	.37
Terpinyl Acetate, 25 lb. cans	lb.	.80	.90
Thymol, U. S. P.	lb.	1.40	1.50
Vanillin, U. S. P.	lb.	4.50	5.75
Yara Yara	lb.	1.30	2.00

Pyrethrum Products

Insect powder, bbls	lb.	.34	.36
Concentrated Extract			
5 to 1	gal.	1.90	2.00
15 to 1	gal.	5.66	5.74
20 to 1	gal.	7.55	7.65
30 to 1	gal.	11.10	11.25

Gums

Arabic, Amb. Sts.	lb.	.08	.08¼
White, powdered	lb.	.12½	.14
Karaya, powdered No. 1	lb.	.10	.11
Tragacanth, Aleppo, No. 1	lb.	1.00	1.05
Sorts	lb.	.11	.12

Waxes

Bees, white	lb.	.32	.35
African, bgs	lb.	.20	.22
Refined, yel.	lb.	.22	.26
Candelilla, bgs	lb.	.11	.12
Carnauba, No. 1	lb.	.30	.33
No. 2, Yel.	lb.	.30	.32
No. 3, Chalky	lb.	.16	.16½
Ceresin 156-165 deg	lb.	.29	.30
Paraffin, ref. 125-130	lb.	.03⅝	.04¼

A little goes a long way

HERE'S a money-saving hint for housewives. Packaged cleansers made from Victor Tri Sodium Phosphate go further . . . do the work better . . . and make possible a worth-while saving in the household budget. T. S. P., because of its remarkable emulsifying and detergent properties, can be used in much smaller quantities than with other cleaners.

Sales making data on request

Complete, laboratory data covering the many advantages of Victor Tri Sodium Phosphate will gladly be supplied on request. Packagers of this popular household cleanser will find the information of considerable value in preparing sales promotion material and advertising campaigns.

Another advantage of the packaged cleanser made from

VICTOR

TSP

A pure, brilliant white, free-flowing material of uniform high quality and superior mechanical condition. Available in four grades: chip, flake, fine and powdered.

VICTOR CHEMICAL WORKS
141 W. Jackson Blvd., Chicago, Ill.

WARNER Quality

PIONEERED FOR NEARLY 50 YEARS

CAUSTIC SODA
HIGHEST GRADE
(ELECTROLETIC)
IN EITHER SOLID OR LIQUID FORM

CARBON TETRACHLORIDE
REDISTILLED WATER-WHITE
SUPPLIED ALSO IN COMBINATION WITH OTHER SOLVENTS TO MEET INDIVIDUAL REQIREMENTS

TRI-SODIUM PHOSPHATE
FINE GRANULAR AND POWDERED
A FREE FLOWING AND NON-CAKING PRODUCT NATIONALLY KNOWN FOR ITS UNIFORM QUALITY

An opportunity to submit samples and quotations is solicited

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CHRYSLER BUILDING, NEW YORK CITY
155 E. SUPERIOR ST., CHICAGO
70 RICKARD ST., SAN FRANCISCO

EXCLUSIVE SALES AGENTS for WESTVACO CHLORINE PRODUCTS, Inc.

Soap Fats in 1934

(*From Page* 19)

derers in particular have been hit especially hard by the economic situation from which we are emerging. Many renderers have found themselves unable to survive the struggle and have given up the ghost in despair until such time as they can operate their plants profitably. The elimination of certain units of the industry did not bring about a decrease in the tallow and grease production of the country. On the contrary, it rose due to the availability of liberal supplies of cheap grains which induced heavier stock feeding with the result that the fat yield per carcass was higher, proof of which will be found in the following figures of the Bureau of the Census:

NINE MONTHS' PRODUCTION (JAN. TO SEPT. INCL.)
('000s omitted)

	1931	1932	1933
Tallow, inedible	377,855	362,871	414,273
Grease, white	50,953	49,699	58,280
" yellow	61,611	51,263	56,673
" brown	39,517	32,921	37,162

The immaturity of the bulk of the pigs bought last fall by the government,—a great many were in the suckling class,—resulted in a sharp revision of the figure for anticipated grease yield from that source. The government had counted on converting 80 per cent of the porkers into commercial meat cuts but actually only approximately 20 per cent were suitable. So many breeding sows were retained instead of being sent to market, as was the government's intention originally, that an average crop of pigs, if not an actual increase in numbers, may be looked for during the coming year. In fact the last government estimate revealed a gain of 2.7 per cent in the hog population of the country.

It is fortunate from the standpoint of the domestic inedible fat producers of the country that the pigs slaughtered were uniformly so underdeveloped. Otherwise supplies of hog grease would have been far more extensive. If the government contemplates this form of agricultural relief in 1934 and takes no steps to insure delivery of a much higher percentage of brood sows than came from the farms last year, the marketing of a preponderance of immature pigs again will be a feature of Uncle Sam's hog buying of advantage to the renderers.

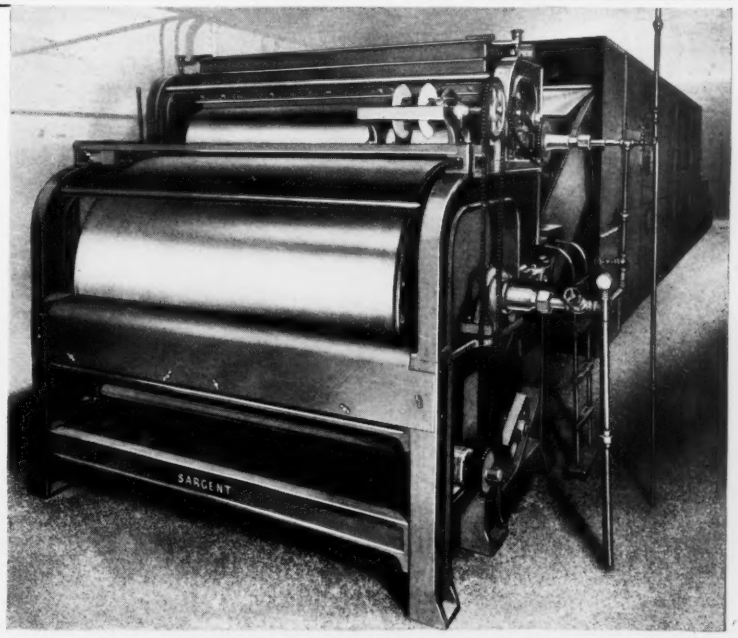
Consumption Down Four Per Cent

THE data in the table below are based on figures issued by the Bureau of the Census. A comparison is afforded for the diversion of fats to the soap kettle in the first nine months periods of each of the past three years in the case of those fats enumerated which constituted in excess of 99 per cent of the total requirements of our soap industry in 1931 and 1932. The percentages shown have been calculated from the statements of the Bureau of the Census "Factory Consumption of Animal

(*Turn to Page* 95)

New!..

a Soap Chilling Roll and Drying Machine

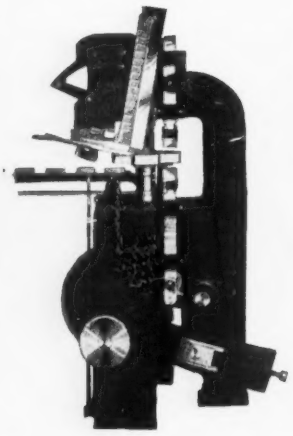


AS the title indicates, the Rolls are NEW and the entire machine is NEW, many valuable improvements having been perfected until this latest Sargent development is now one of the very finest Rolls obtainable.

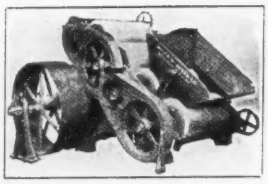
To the soap manufacturer, the most important angle is to have a *thin, uniform chip* . . . readily accomplished by these new Rolls being expertly machined, ground and set. Finest grade of cast iron. Vari-speed controls on both Rolls insures easy adjustment . . . every part accessible. Drive improvements reduce the horsepower used. Changes made at a minute's notice. The Dryer is entirely re-designed. Its housing gives better insulation and cuts down steam consumption per hour. Other valuable changes have been made in the circulating and exhaust air systems . . . and all *fans* are *direct motor driven.*

C. G. SARGENT'S SONS CORP. GRANITEVILLE MASS., U. S. A.

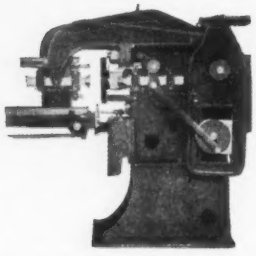
Special Offerings of SOAP MACHINERY *Completely Rebuilt!*



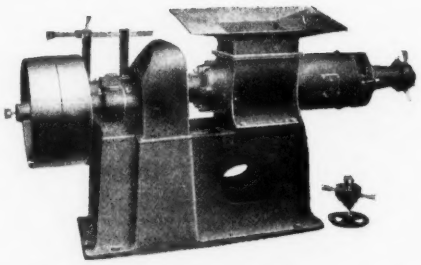
Small size fully automatic Jones toilet soap press. Capacity 150 to 200 small cakes per minute. A real buy at an attractively low price. Has been completely rebuilt in our own shops.



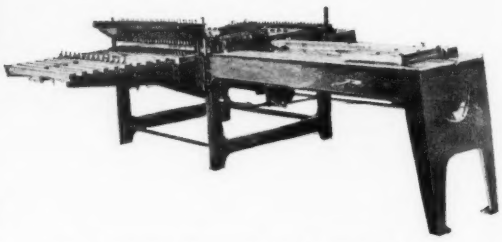
H-A SOAP MILL
This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls.



4 JONES AUTOMATIC combination laundry and toilet soap presses. All complete and in perfect condition.

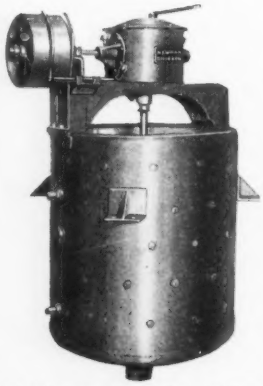


Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.



2 Automatic Power Soap Cutting Tables

NEW CRUTCHERS!



This Newman brand new, all steel steam jacketed soap crutcher. Will crutch any kind of soap. We also build another crutcher especially adapted for laundry soap in addition to other new soap machinery such as frames, cutting tables, etc. Send for complete list.

ADDITIONAL USED SOAP MACHINERY

H-A 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.
Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.
Ralston Automatic Soap Presses.
Scouring Soap Presses.
Empire State, Dopp & Crosby Foot Presses.
2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.
H-A 4 and 5 roll Steel Mills.
H-A Automatic and Hand-Power slabbers.
Proctor & Schwartz Bar Soap Dryers.
Blanchard No. 10-A and No. 14 Soap Powder Mills.
J. H. Day Jaw Soap Crusher.
H-A 6, 8 and 10 inch Single Screw Plodders.
Allbright-Nell 10 inch Plodders.
Filling and Weighing Machines for Flakes, Powders, etc.
Steel Soap frames, all sizes.
Steam Jacketed Soap Remelters.
Automatic Soap Wrapping Machines.
Glycerin Evaporators, Pumps.
Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36 inch.
Perrin 18 inch Filter Press with Jacketed Plates.
Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter Tops.
Day Grinding and Sifting Machinery.
Schultz-O'Neill Mills.
Day Pony Mixers.
Gardiner Sifter and Mixer.
Proctor & Schwartz large roll Soap Chip Dryers complete.
Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.
Day Talcum Powder Mixers.
All types and sizes—Tanks and Kettles.
Ralston and H-A Automatic Cutting Tables.
Soap Dies for Foot and Automatic Presses.
Broughton Soap Powder Mixers.
Williams Crutcher and Pulverizer.
National Filling and Weighing Machines.

All used equipment rebuilt in our own shops and guaranteed first class condition.

Send us a list of your surplus equipment—we buy separate units or complete plants.

NEWMAN TALLOW & SOAP MACHINERY COMPANY

1051 W. 35th ST.
CHICAGO

Our Forty Years Soap Experience Can Help Solve Your Problems

Oil-Fat-Soap

PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps, published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

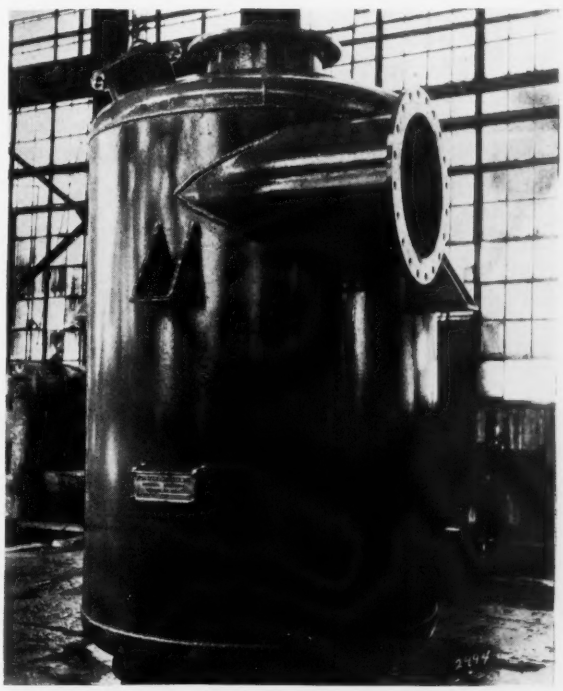
New Glycerine Equipment

Use of Stainless Steel in New Armour Installation

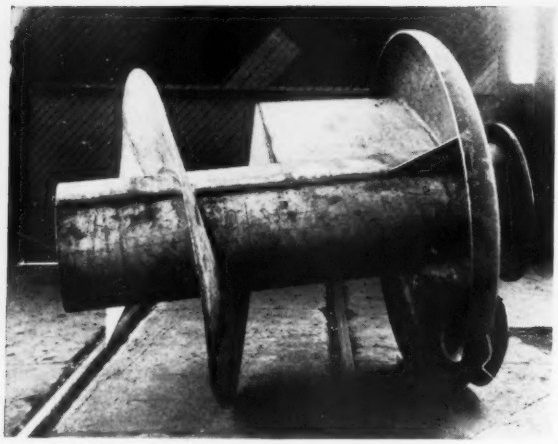
SEPARATION of entrained liquids from vapors by the centrifugal process during distillation has been used in the soap and other process industries for some years. However, the recent installation of a new centrifugal separator in the glycerine plant of the Armour Soap Works, Chicago, has incorporated some new construction features that are noteworthy. These innovations include the use of stainless and stainless clad steel for the entire construction, and also complete fabrication by arc-welding. In the Armour installation, the separator is used to remove liquid particles entrained in the vapors in the distillation of glycerin.

This insallation is a Flick centrifugal catchall and entrainment separator which is composed of three essential elements, the outer shell, fitted with tangential intake pipe and top center outlet; the central helical element, which gives the incoming liquor-laden vapors a centrifugal action; and, third, the inner liner, or basket, which is constructed of a series of staves, with slits or louvres between each stave, through which the heavier liquids pass and drop to the bottom chamber of the separator, and are carried away. These three elements are shown in the accompanying illustrations.

The action of the separator is as follows: vapors enter the separator tangentially through the side inlet pipe and a circular motion at high velocity is set up. The resulting centrifugal force throws the entrained liquid and froth against the inner surface of the staves of the inner shell. The liquid particles impinging on the staves continue to move in the same swirling motion and thus immediately pass through the slits between the staves. There is no circulation in the space between the inner shell and the outer shell, which allows the liquid particles to drop to the bottom of the separator and thus be removed from further contact with the high velocity vapors. To prevent any circular movement of the vapors in the space between the inner and outer shells, vertical partitions are placed at intervals. In the bottom of the separator the liquids pass out through the bottom outlet



Assembled view of welded Flick centrifugal entrainment separator constructed of stainless steel.



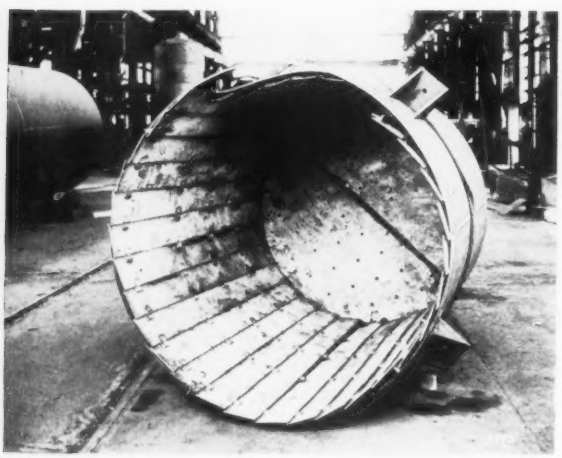
Stainless steel helical element which guides vapors through separator.

or return pipe leading to the evaporator, still or receiver.

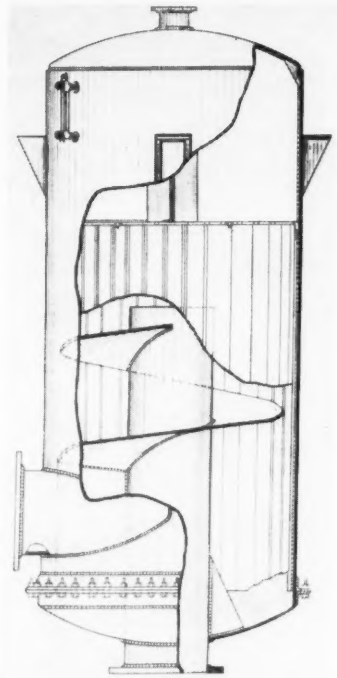
The vapors follow the helical plate in the separator, which in addition to the circular movement imparted by the tangential inlet, gives those vapors a downward whirling movement which leads the vapors down to the center pipe opening and out through the top of the separator. This separator is large enough to act as a catchall. There is ample capacity in the bottom to hold an amount of liquid far in excess of the capacity of the return pipe to carry it away. The bottom chamber of the separator is separated from the inner chamber by a perforated bottom of the inner shell, which prevents contact between the high velocity vapor and the separated liquids.

The helical element and the stave-constructed inner shell of the Armour installation are of solid stainless steel. The outer shell, inlet and top center outlet pipe are of stainless clad steel. All stainless and clad material is of the 18% chromium, 8% nickel, low carbon analysis. The Flick separator is 6 feet in diameter and 10 feet, 8 inches high. Both the tangential inlet and top center outlet pipes are 24 inches in diameter. A manhole is fitted to the top of the separator for access in cleaning. The separator was designed and built by Wurster & Sanger, Inc., Chicago, and was installed along with other equipment, by the Foster-Wheeler Corp., New York. The stainless steel was supplied by Ingersoll Steel & Disc Co., Chicago. At the Armour works, the system operates under a vacuum and at about 335° F.

The Flick separator is part of a complete unit recently installed which includes an autoclave complete with baffle tower and still, all of which used all-welded stainless steel construction for the first time. It is claimed that the low cost and ability to fabricate stainless steel easily for pressure vessels and other processing equipment, combined with the much greater life expectancy form the use of this corrosion-resisting material as compared with metals formerly used, will result in substantial savings. Maintenance has formerly proved a major expense in the use of this type of equipment which the use of the stainless steels is expected to materially reduce.



Interior view of Flick separator showing assembly of stave constructed liner in outer shell. Liner constructed of stainless steel; outer shell of stainless clad steel.



Phantom view of Flick separator showing assembly of helical element and inner liner.

Products useful as wetting and emulsifying agents are obtained by treating naphthalenesulfonic acids with benzoin and an aliphatic or cyclic alcohol, together or in either order, in the presence of a condensing agent, i.e., sulfuric acid or chlorosulfonic acid. Alternately, a mixture of naphthalene, benzoin, and an alcohol may be treated with a reagent having both a sulfonating and a condensing action. S. A. Ind. Chim. Basle. Ger. Pat. 582,380. Addition to 517,498.

Bacterial Decomposition of Soap

Black spots were noticed in a batch of soap, some of the spots being as deep as four to five mm. The soap had become white and friable in another place. This phenomenon is due to the decomposition of the soap resulting in the partial liberation of fatty acid. Micro-organisms, especially *aspergillus niger*, were found to be the cause of the trouble. Infection takes place probably from the soap wrapper. Conditions favorable for the growth of the bacteria are created by the presence of a certain proportion of moisture and also nitrogen in the soap. This infection may be avoided by allowing the soap to remain for 48 hours in contact with formaldehyde vapors (ten per cent concentration), which is followed by aerating the soap for an additional twelve hours to remove the formaldehyde odor. The same treatment can be carried on soaps already infected to prevent the growth of the micro-organisms. N. Sokolov. *Masloboino Jir. Delo*, volume 8, number 12, pages 46 to 49.

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Carotinoid Pigment as Fat Preservative

The oxidation of fats and fatty oils is prevented by the addition of a carotinoid pigment thereto together with sufficient alkali to neutralize the free fatty acids therein. Coconut oil, cottonseed oil, corn oil or peanut oil or lard is mixed with the carotinoid pigment extracted from carrots or alfalfa leaves, or with substances which contain carotinoid pigments, for example palm oil. Thereafter caustic soda is added, and the mixture is heated to a temperature between 100 degrees C. and the decomposition temperature of the fat. The heat treatment, which decolorizes the oil, may be accompanied or followed by purification treatment with alkalies, filtration through diatomaceous earth or fuller's earth, by deodorization with steam or inert gases, or by hydrogenation. In this last treatment the pigment acts as a catalyst. Swift & Co. British Patent No. 371,569.

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Baby-Glo Soap Corp., Buffalo, has recently occupied a new and modern four-story plant at Clinton and Oak Streets.

Phosphate Detergents

Cleansing agents, which do not affect aluminum, tin or their alloys, consist of preponderating quantities of alkaline alkali phosphates mixed with compounds of aluminum or tin which are capable of reaction in aqueous solutions with the phosphates in such proportions that one per cent or stronger solutions do not attack aluminum or tin or their alloys at temperatures up to 90 degrees C. Specified compounds are aluminum hydroxide, aluminum chloride and stannous chloride. When aluminum sulfate is the compound, more than 20 per cent, preferably 25 per cent, or more, is used. For example, 250 grams of crystalline aluminum sulfate are mixed with 750 grams of crystalline trisodium phosphate, or 250 grams of stannous chloride are mixed with 750 grams of calcined trisodium phosphate, and made up as a 5 per cent solution. Chemische Fabrik Budenheim A. G., Mainz, Germany. British Patent No. 390,249.

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Amine Recovery of Fatty Acids

Fatty substances are treated with an aqueous solution of an organic amine. More than the theoretically required quantity must be used. The amine used is recovered from the solution either in the free state or combined with fatty acids by treatment of the solution with an oxide or a hydroxide of a metal giving a soap insoluble in water. The amine may be then recuperated by evaporation, distillation or extraction with a solvent. The fatty acids, which are originally contained in the original fatty substances treated, are obtained by decomposing the metallic soaps with an acid. E. Delaunay. French Patent No. 739,696, November 3, 1932.

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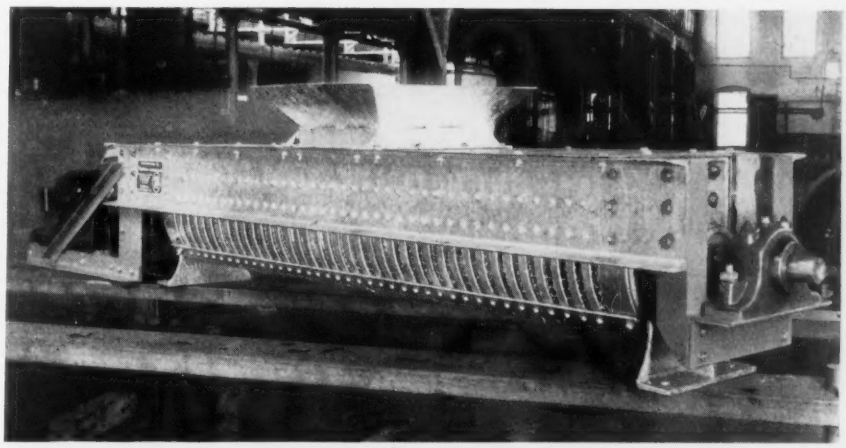
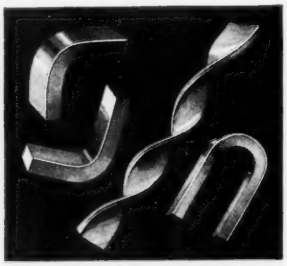
Cost and Production Handbook, edited by L. P. Alford and a board of 80 authorities. 1600 pages, 619 figures, 170 tables, price $7.50. This handbook offers the best modern practice in cost and production—coordinated and organized to apply under present conditions. It is a work that will be of practical value to all production executives, right down to foremen and overseers; as well as to company officers, financial officials, cost and general accountants.



Something new in a soap chipper. A compact, inexpensive chipper recently brought out by the Stephens-Adamson Manufacturing Co., Aurora, Ill. The new unit consists of a 12-inch screw conveyor with special blades to cut and convey the soap chips in both directions from the central feed hopper. Variation in size of chips possible by changing cutting grid over which soap is carried. Driven by ¾ H.P. gear motor.

USS PLYKROME

can be fabricated, welded, drawn, spun, beaded, formed, and cold rolled without special equipment



Plykrome will not separate or split under severe forming operations

THE unique method of bonding stainless steel to the carbon steel backing effectually prevents any splitting or separation under severe forming operations with standard equipment.

Hence Plykrome offers an economical and dependable solution to the problem of combating corrosion and contamination at low cost. Plykrome presents a solid surface of standard USS 18-8 stainless steel, but it relies upon low cost carbon steel for necessary physical strength.

Complete metallurgical information and guidance in the use or working of Plykrome may be had upon request.

Illinois Steel Company

208 S. LA SALLE STREET CHICAGO ILLINOIS

SUBSIDIARY OF UNITED STATES STEEL CORPORATION

U S S CHROMIUM-NICKEL ALLOY STEELS ARE PRODUCED UNDER LICENSES OF THE CHEMICAL FOUNDATION, INC., NEW YORK, AND FRIED. KRUPP A. G. OF GERMANY

Soap Action on Oily Dirt

The detergent power of soap to remove oily dirt was measured for soap solutions of 0.25 to one per cent concentration. Within this concentration range, soaps made from rosin and naphthenic acids have no detergent power, although the solutions can suspend powders in the McBain C test. These soaps reduce the washing action if added to solution of ordinary, fatty soaps. The detergent action of soaps was found to increase with the concentration of the solution. Elevated temperature improves the detergent of sodium palmitate and sodium stearate, but reduces that of soaps of rosin and the higher liquid fatty acids. Addition of sodium carbonate improves the washing power in the case of solutions of soaps of rosin and naphthenic acids and mixtures containing them, but reduces that of ordinary soap solutions. The addition of sodium carbonate has a similar qualitative effect on interfacial tension in all cases. Experiments indicate that the peptizing action of oleic soap is an important, although not the only, factor in determining detergent power. B. Tiutiunnikov, S. Pleschkova and A. Tschernitschnika. *Allgemeine Fett und Oel Zeitung*, 1933, volume 30, pages 294 to 296.

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In molding soap by an endless chain of molds traveling under filling means and through a cooling chamber, the molds are preheated approximately to the temperature of the liquid soap and preferably are formed with 4 hinged sides opening out to release the molded cakes, and the cooling is effected gradually and progressively to prevent sudden chilling of the cakes. The filling may take place in a vacuum chamber. Baker Perkins, Ltd., E. T. Webb, etc. Brit. Pat. 394,365. June 26, 1933.

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Exports of gum rosin from United States during November, 1933, totaled 80,997 barrels worth $579,856.

Alcohol Sulfates Efficient Detergents

The washing action of the sodium alkyl sulfates has been studied in relation to some of their chemical and physical properties. A standard soil was produced by passing cloth through an aqueous suspension of carbon, squeezing well between each passage, and drying at 40°. The cloth was then immersed in a bath of oil in carbon tetrachloride which evagulated the carbon in the fibers and surrounded the dirt with a coating of saponifiable and partly unsaponifiable oil. Washing was carried out in a drum wash machine with the bath, water hardness, temperature, mechanical conditions and pH kept constant. Maximum washing effect was obtained at pH 10.7. The effectiveness of washing standard soiled cloth at 60° C. for 1 hour was determined with sodium alcohol sulfates. These varied in the length of their carbon chains from 12 to 18. Washing effectiveness with soft water was at a maximum at C_{16}. All the alcohol sulfates were more efficient than sodium stearate. With increasing temperature, the higher C compounds were more effective. For every temperature and water hardness optimum action was obtained with some particular alkyl sulfate. At 60° C., maximum foam by the steipel foam number method corresponded to maximum washing power. Dirt particles showed a change in charge at pH5, which is the point of minimum washing power. Dirt was more easily removed, the higher the positive or negative charge. No stable emulsion could be obtained with the oil mixture used to coat the standard carbon dirt between pH4 and 6. Multivalent negative ions, such as ferricyanide, increased washing power, while cations such as barium and aluminum decreased it. Compounds with capillary-active cations, such as tetra-alkyl ammonium derivatives, lacked washing properties. Only capillary-active anions were found to be satisfactory washing agents. E. Götte. *Kolloid-Z. 64*, 222-7, 327-31, 331-5 (1933).

New installation for weighing and packaging 4-M Cleanser at the plant of the Midwest Chemical Co. of Milwaukee. The equipment is a Triangle Economy Packager of Triangle Package Machinery Co., Chicago. Maker states it is the lowest priced complete one-operator top and bottom carton sealer and automatic weigher yet developed.

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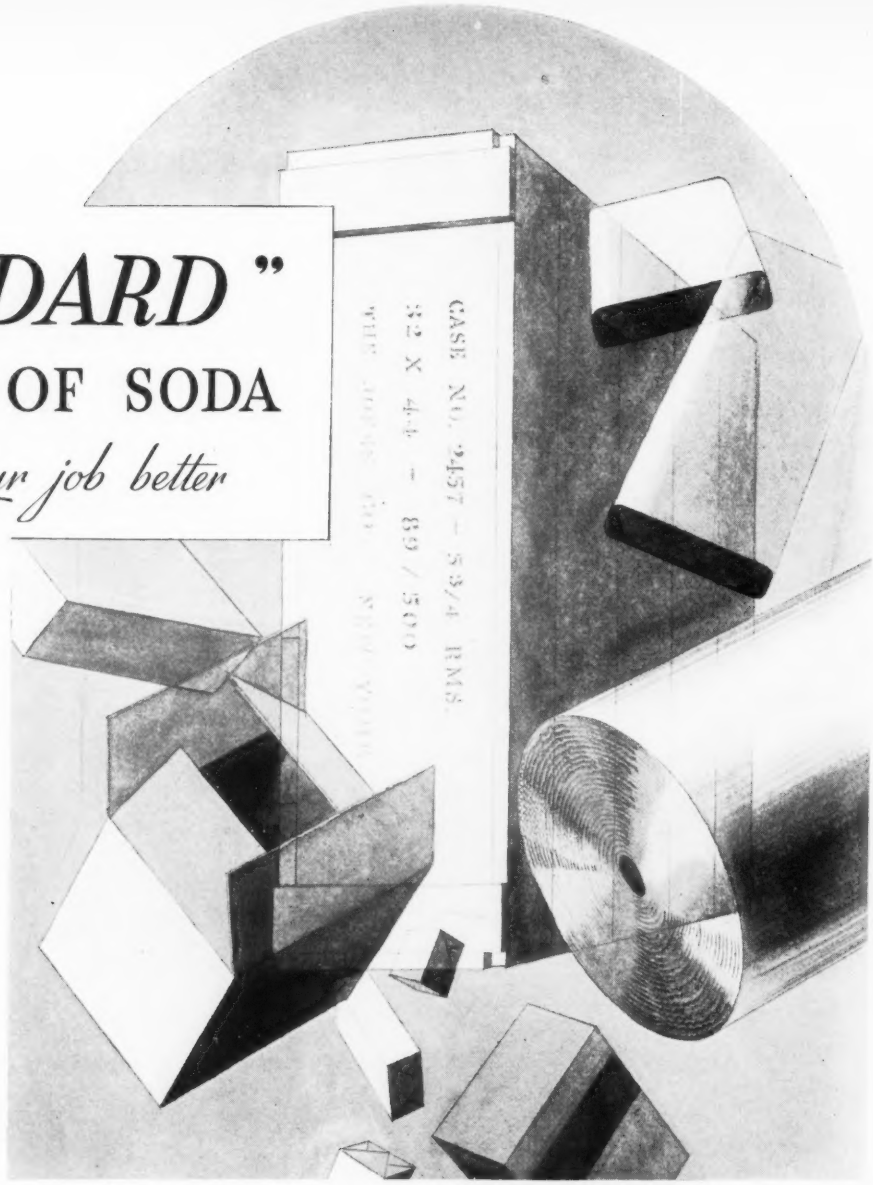

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ON PRODUCTS AND PROCESSES

In computing the composition and charge for soap, the titer of the stock should be considered and can be dealt with in the form of a "hardness number" (H). This is defined as the I. N. S. value + (F x titer). F (-3.7) is a titer factor obtained by dividing an ideal I. N. S. value (195) by the highest possible titer (52.7) of a soap-stock. H is to be increased by an allowance of 1 unit per 1 per cent of cocoanut oil in the stock. R. L. Datta. *Soap Trade Review 6*, 252-3, 288-9 (1933).

—o—

For determination of alkali in soap an indirect method is suggested. Five grams of the dried soap are extracted with absolute alcohol. The alcohol evaporated, after filtering if necessary. The dried soap is then dissolved in water, acidified with hydrochloric acid and the aqueous acid layer evaporated to dryness. The residue is weighed, dissolved in water and titrated with deci-normal silver nitrate. The soda and potash can be calculated from the weight of the residue and from the chlorine figure. When the soap contains free alkali, this should be titrated in the alcoholic solution before filtering. This indirect method affords results which are comparable with the perchlorate method for determining potash. *Allgemeine Oel u. Fett Zeitung*, 30, 233.

—o—

A shaving composition comprises as the major ingredient a lathering soap and containing minor percentages of a salt of alginic acid, of an inert inorganic filler of a slippery nature and of water, said composition being adapted to form a lather of unusual persistence and being without objectionable action upon the skin of a human face and also being adapted to leave the skin in a clean fresh and velvety condition after the shaving operation is completed, as well as to assist in effecting the uniform severance of the hairs at the base thereof by the razor blade in the shaving operation.—U. S. Pat. No. 1,940,-026.

—o—

Bleaching of palm oil is accomplished by heating the oil to 90° by means of steam coils, dusting cobalt borate on the surface and blowing air through the mixture for approximately two and a half hours. The bleached oil appears to be permanent. C. D. V. Georgi & T. D. Marsh, *Malay Agric. Jour.* Vol. 21, 505.

—o—

Analyses of the German washing compounds Persil, Ozonil, Clasen's Rapil, Pergal, Pergolin and Bleichin show that all contain soap, soda ash, sodium silicate, and sodium perborate in varying amounts. The dry soap content varies from 23.5 to 29.1 per cent. C. Grimme. *Seifensieder-Ztg. 60*, 771-2 (1933).

The problem of determining the nature and amounts of fats used in the manufacture of soaps made from several different fats is complex. Emphasis is laid on the value of the titre test, the value of which, however, is not proportional to those of the materials used. Curves are given showing the variation in the titre test of various mixtures of peanut, coprah, tallow, stearic acid, palm oil, horse fat, soy-bean, linseed oil and rosin. G. Wolff, *Chimie & Industrie*, Special No. 1039.

—o—

A process for making a substantially anhydrous persalt soap readily soluble in water has been patented by Adolf Welter, Krefeld, Germany. It consists in mixing about 100 parts of highly split, saponifiable and saturated fatty acids of the non-drying oils with 44 parts of calcined soda, the spontaneous heat of reaction causing the saponification stirring the thus saponified mass until it becomes stiff, incorporating 15 parts of sodium perborate into said saponified mass before the reaction mass goes over into solid state, and lastly forming the soap mass into desired shape before the mass is cold and brittle; all parts measured by weight.—U. S. Pat. No. 1,940,-570.

—o—

Wetting, dispersing, cleaning and foam-producing agents result in the production of certain sulfonated amides. Unsubstituted or monosubstituted amines, in which at least one of the radicals joined to nitrogen consists of an aliphatic or alicyclic hydrocarbon of high molecular weight, are transformed to halogenated amides by treatment with halogenated carboxylic acids having at least one mobile halogen atom. One or more of the halogen atoms are then replaced by sulfo groups. Examples are given of the preparation of cetylpropionamide-beta-sulfonic acid ($C_{16}H_{33}NHCOCH_2CH_2SO_3H$), dodecyl(hydroxyethyl)acetamidesulfonic acid ($C_{12}H_{25}N(CH_2CH_2OH)COCH_2SO_3H$) and naphthenylacetamidedisulfonic acid. Deutsche Hydrierwerke A.G. French Pat. 750,647.

—o—

Dyestuffs having soap-like properties are made by treating hydroxy or amino-group containing dyestuffs with organic monobasic sulfonic acids or their halogenides, etc. The products produce a lather when dissolved in water and gelatinize to soap-like jellies. Deutsche Hydrierwerke A. G., Hodleben, Germany. British Patent No. 393,966.

—o—

The use of boric acid to neutralize any excess alkali will keep liquid soap from becoming cloudy. M. Sido. *Pharm. Ztg.* 87, 992-3 (1933).

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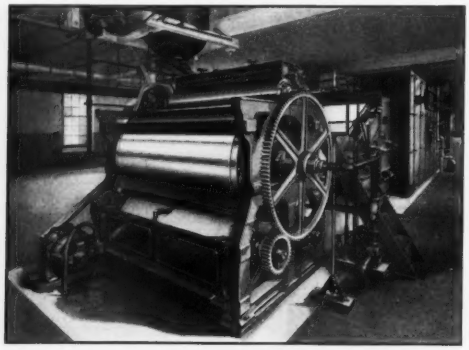

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Milled Transparent Soap

Controlled addition of rosin and cooling of the finished soap allow the manufacture of milled transparent soap without the need of adding alcohol, glycerin, sugar, soda crystals and the like, which are usually employed to prevent the crystallization of the solid- undercooled soap solutions resulting in the formation of an opaque mass. In the new process, which is described in German Patent No. 475,927, the raw materials used for making the soap are first purified and then treated with pure alkalies in the presence of sufficient quantities of rosin to retard the crystallization of the soap mass. Thus saponification is carried out without the need of adding the usual reagents which aid in the formation of a transparent soap and thus considerable losses of these reagents, such as alcohol for example, are avoided and costs of manufacture are reduced.

The stock mixture is of the usual composition used for making transparent soap, and may not contain coconut oil or castor oil and is saponified in the presence of rosin. The soap is fitted almost neutral, in any event containing inappreciable quantities of alkali and is obtained in a highly concentrated condition. The mixture should contain about 64 to 66 per cent soap paste. It forms a very thick mass. Such soap will normally congeal into an opaque mass, but when it is subjected to cooling in thin layers, it becomes transparent. The principal requisite is that the temperature of the hot, liquid soap should be reduced very quickly to the room temperature so that crystallization cannot ensue. Furthermore, the presence of alkali resinate also retards the crystallization of the soap. Cooling is therefore best accomplished on strong cooled mixing rolls.

The soap, which is obtained in this manner, is dried only in an air current at ordinary temperature, because heating the soap tends to cause formation of crystals. In dried form the soap contains not much more than 70 per cent fatty acids. It is fed into the plodders in this condition and worked up in the usual manner to toilet soap. The head of the plodder should be water-cooled and the speed of the screw should be about half that normally used in processing toilet soap.

The fat mixture consists for example of 61 parts by weight of tallow, 18 parts of coconut oil, 11 parts of castor oil and 10 parts of rosin. It is saponified with 45.8 parts of pure sodium hydroxide solution of 39 degrees Be. Another fat mixture consists of 92 parts of crude palm oil and 8 parts of rosin. This mixture is saponified with 42.9 parts of sodium hydroxide solution, 38 degrees Be.

—o—

The fourth annual packaging exposition conducted by the American Management Association will be held in the Hotel Astor, New York, March 13-16. As a feature of the exposition the Irwin D. Wolf trophy will be awarded to the best package developed and placed on the market between January 1, 1933, and February 15, 1934, in the opinion of the judges.

Saponificaton of Emulsified Oils

Peanut oil was emulsified with distilled water either by mechanical agitation alone or with a specially prepared neutral peanut oil soap used as an emulsifier. The rate of saponification was increased by increasing the degree of dispersion of the oil (time of agitation prior to the addition of alkali), by increasing the volume of the oil phase and by increasing the quantity of the emulsifier used. Increase of the concentration of the alkali used for saponification beyond the quantity equivalent to the oil is without effect. A large excess of alkali or the addition of sodium chloride decreases the rate of saponification due to the fact that demulsification takes place. When the oil emulsion is diluted with water, the rate of saponification is likewise decreased, while the addition of ethyl alcohol has a marked effect in increasing the rate of saponification. P. C. Speers, N. A. Yajnik, D. N. Doyle and M. Shafi. *Journal Chimie Physique*, volume 30, 1933, pages 414 to 419.

—o—

Source of lauric acid—Ninety-six per cent of the fat which was extracted from the kernel of the seeds of *Actinodaphne hookeri meissn* was shown to be trilaurin. The remainder was chiefly triolein. Some trilaurin was obtained from the seed shells. The oil remaining after saponification was a small amount of resin acids, a mixture of glycerides of oleic acid and isomeric oleic acids. S. V. Puntambekar & S. Krishna. *Jour. Indian Chem. Soc.*, 10, 395 (1933).

—o—

Abrasives Polishes

(*From Page* 23)

present in the polish which can have a deleterious solvent action on the enamel or lacquer. Some of the modern solvents are particularly unsatisfactory with some lacquers, as the latter are readily dissolved and the bare surface of the metal is exposed.

In most instances, an enamelled or lacquered metal should not be treated with a "metal-polish," but with one specially designed for the purpose. It should not contain any strong alkali, the vehicle must not be a powerful solvent, and the abrasive must be mild. If in addition, a dispersive agent for "dirt" and a solution of wax can be included with the other ingredients, the gloss on the polished surface will be greatly enhanced. In thus attempting to combine a lacquer with an abrasive polish, great care is necessary to employ suitable proportions of the various ingredients, or serious damage may be done. Here again, a little common sense applied to the removal of "thick dirt" will prevent much needless waste of polish.

Homogeneity is an essential property of all high-grade polishes and those which readily separate into two or more phases can only be regarded as of inferior quality. The requisite uniformity of texture is secured by careful grinding, suitable mechanical mixing appliances, special attention to the control of the temperature, and accurate adjustment of the proportion of the various ingredients.

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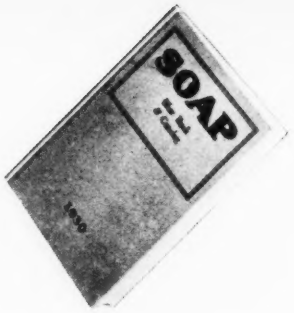

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Defects in Polishes

Defects, of which the following are fairly common, are worth special attention:

Dull appearance in the container.—This is only noticeable in pasty polishes, especially those containing waxes. It is due to filling the container at an unsuitable temperature, to putting the polish into cold boxes or tins, to cooling the polish in a draught, to "bloom" produced by soluble matter, to too little or unsuitable dye, or to the crystallization of some of the constituents—this last being due to cooling too quickly or to the use of an unsuitable vehicle.

Blisters or air-bubbles on the polish when in the tin are unsightly, but otherwise harmless. They are usually due to too vigorous a stirring, the stirring-blades being incompletely immersed, the polish being too cool while it is being poured into the tins, or to it being poured too violently.

Drying and shrinkage in the container are so closely allied that they may be considered together. The commonest cause is the use of too volatile a vehicle, the remedy being obvious. A good precaution is to avoid the use of vehicles with a boiling-point below 200° C. for all polishing pastes supplied for domestic use. For polishes used on a larger, industrial scale this precaution is less important. Other causes of shrinkage are prolonged storage particularly if the covers fit badly or if stored in too hot a place, closing the tins too quickly, filling them with too hot a material, and, occasionally, the use of unsuitable materials. When benzene was a popular vehicle and large tins were used for shoe and floor-polishes an excessive shrinkage was very common.

Separation of the polish into two phases, one of which is a liquid, is an objectionable defect in polishing-pastes, and one which is very difficult to prevent. The larger the proportion of colloidal gel in the polish the greater is the liability to hysteresis, as this is a characteristic property of gels. Slight variations in the proportions of the different ingredients, in the mode of mixing, or even in the temperature of the materials will often prevent such separation. This defect is also caused by "freezing" the polish and then allowing it to thaw, as this treatment partially destroys the gel-structure. Only in rare instances is hysteresis due to the use of too large a proportion of liquid, as the amount of "weeping" which occurs bears little or no direct relation to the proportion of liquid in the original mixture.

Sedimentation may occur in pastes as well as liquid-polishes, though it is much commoner in the latter. Sedimentation in cheap liquid-polishes is so common that many manufacturers and users scarcely regard it as a defect. A slight sedimentation or deposit is generally unavoidable, but a large proportion of deposit indicates lack of skill in preparation or the absence of precautions to prevent sedimentation. If, for instance, a polish consists of a mixture of silica-flour and paraffin-wax or other mobile vehicle, without any stabilizer, sedimentation will occur rapidly. If a little soap and water is present less sedimentation will occur and by the use of a more viscous vehicle or an emulsion sedimentation may be almost wholly prevented.

Corrosion of the polished surface by the polish is less common then formerly. In the case of metal-polishes it is chiefly due to the use of an acid as detergent, while in shoe-polishes the presence of free potash is a common cause. Formerly when polishes for silver contained mercurous chloride, the corrosion caused by this substance was very serious. Fortunately, its origin was soon recognized and manufacturers of more reliable polishes discontinued using mercury compounds.

Low Polishing-Power results in the final surface not being sufficiently brilliant or its production requiring too much labor. This may be due to any of the following causes: an unsuitable abrasive; "worn" abrasive, one in which the particles are so rounded that they have scarcely any cutting or polishing power; in some polishes for leather and wood a dull finish may be due to the use of too soft a wax, of too large a proportion of soft wax, or of a vehicle or solvent which does not evaporate sufficiently quickly. Sometimes, a dull finish is not due to a defect in the polish, but to poor technique in its use. In all polishes containing wax or similar material dissolved in the vehicle sufficient time must be left for the greater part of the solvent to evaporate before finally rubbing to produce the desired finish. During the time when the polish is being spread on the leather or wood sufficient vehicle must be present to produce a smooth and uniform coating. To secure the "finish," on the contrary, all the solvent must have evaporated as it is the wax and not the solvent which forms the polished surface. This explains why a solvent of slow evaporative power, while excellent in other ways, may be objectionable to a hurried or impatient user. The difficulty is usually surmounted by issuing detailed directions for using the polish.

What is sometimes regarded as a "poor finish" may also be due to insufficient preparation of the surface to be polished, including the removal of any dirt or tarnish. Articles which are in a very bad state though neglect may require a vigorous preliminary treatment before the application of the polish. It is quite useless to suppose that a polish of first-class finishing power will be equally useful for removing large quantities of tarnish or dirt, so that a separate preliminary treatment is essential.

A *bloom* or mouldy appearance which develops a few days after polishing may be due to a corrosive agent in the polish, an excess of vehicle, an unsuitable vehicle, too large a proportion of carnauba wax or too little ceresin in polishes for wood or leather, and storing the polished article in a cold damp place. The remedy in each case is obvious.

The "Chemistry & Physics of Polishing Materials" covers a very large field in which relatively little direct research work has been done. Though an enormous amount of investigational work has been done on the general properties of the various ingredients, little has been attempted in the way of specific research outside the laboratories of a few special firms.

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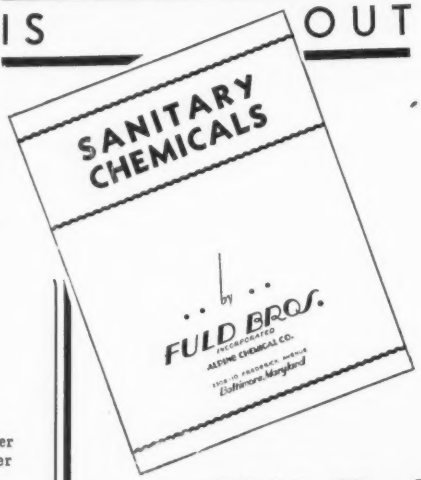

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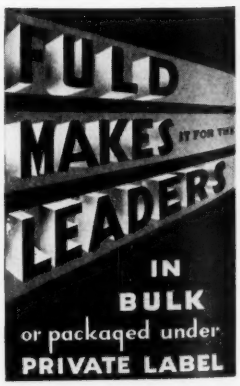

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The House of McCormick is Able to Give You Definite Assurance That These Insecticidal Products Possess the Desired High Killing Powers.

This is only possible because we constantly utilize in our laboratories the best known chemical procedure as well as actually testing these products on household insects. That is what is meant by "chemical and biological control."

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It is standardized to contain 2.15 grams of Pyrethrins per 100 c.c. This extract is available in the following solvents:

Kerosene — *Deo Base*
Acetone — *Pine Oil*
Alcohol — *Camphor Oil*
Carbon Tetrachloride

Extracts of Pyrethrum are also available in any concentration up to 5.0 grams of Pyrethrins per 100 c.c., price varying according to the Pyrethrin content and solvent used.

PYRETHRUM ROTENONE CONCENTRATE

This extract contains the proper ratio of Rotenone and Pyrethrins to function with the greatest efficiency. The Rotenone is in solution in this concentrate and will remain in solution when further diluted.

BULK PYRETHRUM

Whole Flowers

Granulated Pyrethrum

Powdered Pyrethrum

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Derris Extract containing 5 grams of Rotenone per 100 c.c.

Derris Powder containing 4% Rotenone

Rotenone Crystals as Solvate, as Technical Grade or C. P. Rotenone

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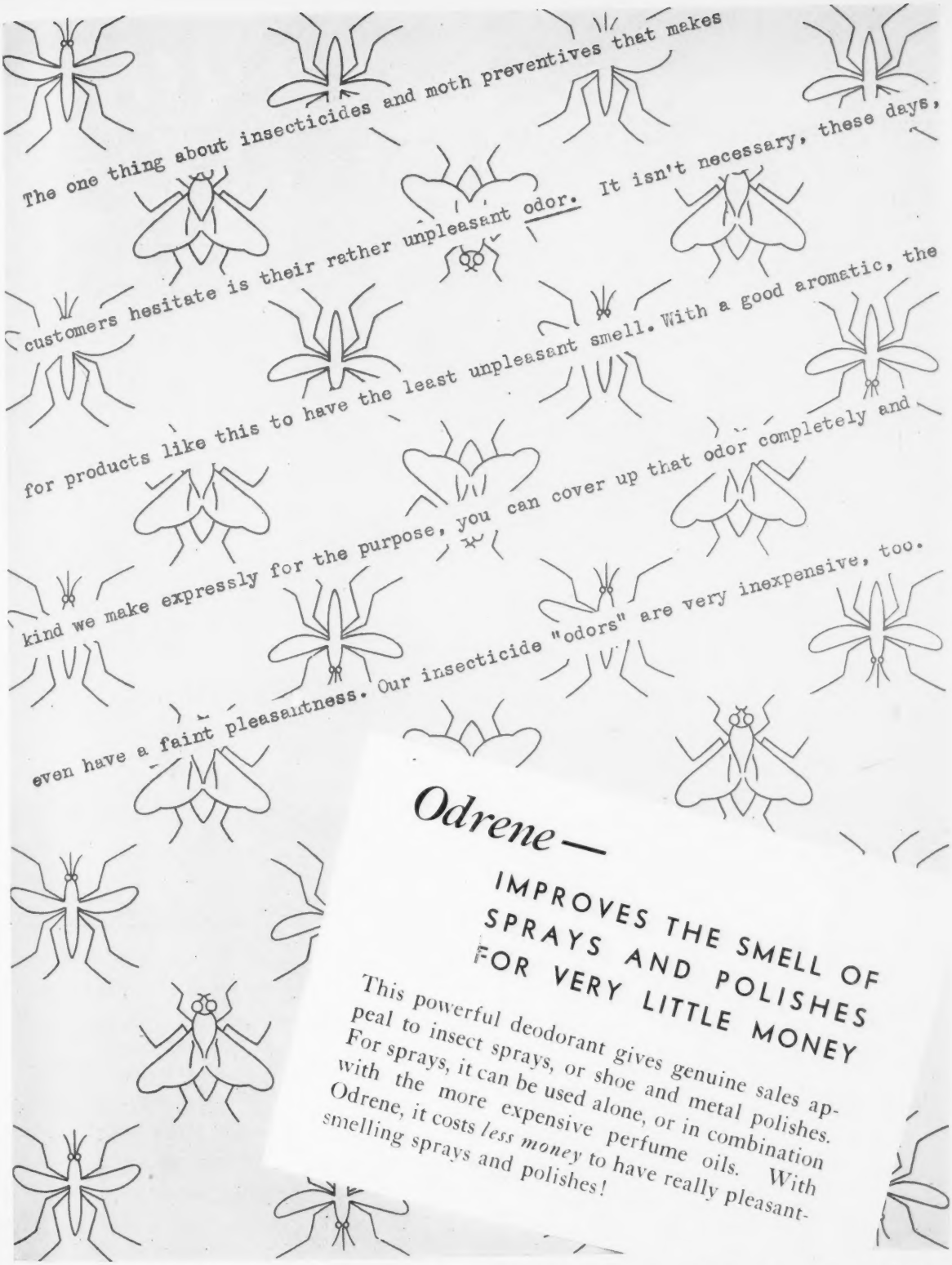
The one thing about insecticides and moth preventives that makes customers hesitate is their rather unpleasant odor. It isn't necessary, these days, for products like this to have the least unpleasant smell. With a good aromatic, the kind we make expressly for the purpose, you can cover up that odor completely and even have a faint pleasantness. Our insecticide "odors" are very inexpensive, too.
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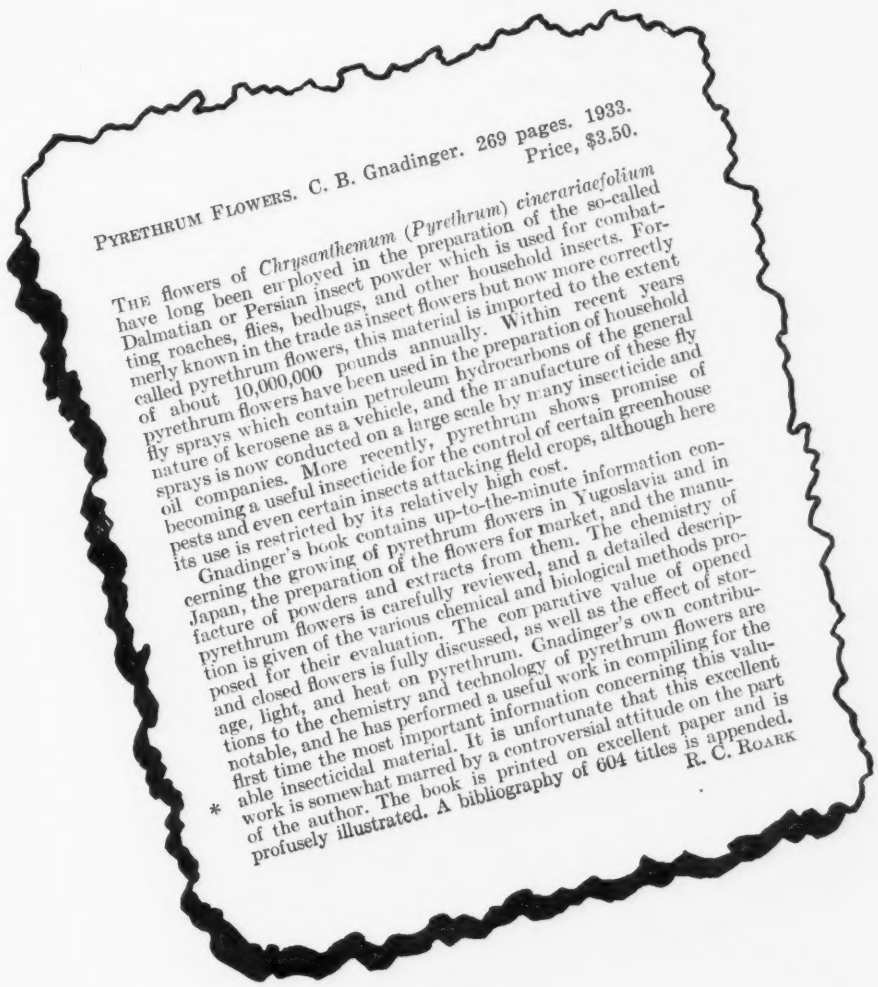
Dr. Roark Reviews "PYRETHRUM FLOWERS"

Following is the complete review by Dr. R. C. Roark, In Charge, Insecticide Division, Bureau of Chemistry and Soils, U. S. Department of Agriculture, as published in Industrial and Engineering Chemistry (News Edition) issue of January 20, 1934.



PYRETHRUM FLOWERS. C. B. Gnadinger. 269 pages. 1933. Price, $3.50.

THE flowers of *Chrysanthemum* (*Pyrethrum*) *cinerariaefolium* have long been employed in the preparation of the so-called Dalmatian or Persian insect powder which is used for combating roaches, flies, bedbugs, and other household insects. Formerly known in the trade as insect flowers but now more correctly called pyrethrum flowers, this material is imported to the extent of about 10,000,000 pounds annually. Within recent years pyrethrum flowers have been used in the preparation of household fly sprays which contain petroleum hydrocarbons of the general nature of kerosene as a vehicle, and the manufacture of these fly sprays is now conducted on a large scale by many insecticide and oil companies. More recently, pyrethrum shows promise of becoming a useful insecticide for the control of certain greenhouse pests and even certain insects attacking field crops, although here its use is restricted by its relatively high cost.

Gnadinger's book contains up-to-the-minute information concerning the growing of pyrethrum flowers in Yugoslavia and in Japan, the preparation of the flowers for market, and the manufacture of powders and extracts from them. The chemistry of pyrethrum flowers is carefully reviewed, and a detailed description is given of the various chemical and biological methods proposed for their evaluation. The comparative value of opened and closed flowers is fully discussed, as well as the effect of storage, light, and heat on pyrethrum. Gnadinger's own contributions to the chemistry and technology of pyrethrum flowers are notable, and he has performed a useful work in compiling for the first time the most important information concerning this valuable insecticidal material. It is unfortunate that this excellent work is somewhat marred by a controversial attitude on the part of the author. The book is printed on excellent paper and is profusely illustrated. A bibliography of 604 titles is appended.

R. C. ROARK

* Publisher's Note: The author presents both sides of every controversial subject.

COPIES of "Pyrethrum Flowers" which Dr. Roark praises so highly, may be obtained from McLaughlin Gormley King Co., Minneapolis, Minn., or from your book dealer. Price $3.50.

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INSECTICIDE AND DISINFECTANT MANUFACTURERS ASSOCIATION I&D MA

INSECTICIDE AND DISINFECTANT SECTION

A Department of SOAP

SOAP is official publication of *The National Assn. of Insecticide and Disinfectant Manufacturers.*
JOHN H. WRIGHT, Secretary, Chrysler Building, New York.

EDITORIAL

WHY should departments of the United States Government and various state governments buy disinfectants, insecticides, soaps, and numerous other allied products at prices sharply lower than those quoted the average jobber and repacker for like quantities and under like conditions? We have contended right along that there is no real reason why the Government should buy at materially lower prices, in numerous instances at prices below established costs. The reaction of the average jobber when he reads of these low prices and then compares his own purchase price, needs no explanation. This is a subject to which manufacturers might well give a little thought.

—o—

IN spite of the fact that the Food and Drug Administration of the Department of Agriculture frowns on the practice, some manufacturers of disinfectants still designate their products with two coefficient figures, giving a range. For example, they state the coefficient as 2 to 3, or 2 to 4, or 18 to 20 as the case may be. This is not only in direct violation of the requirements of the Administration, but it also violates accepted trade practice as established by the reputable manufacturers and jobbers in the business. Accepted practice is in effect that the phenol coefficient shall be declared on the container and on the invoice, and shall consist of one figure *only*,—the minimum coefficient. We also might add that the same applies to quotations submitted to prospective buyers. To quote or bill with two coefficient figures showing a range is a subterfuge intended primarily to mislead the buyer. To label a container today with two figures showing a range is a violation of the law. Those sellers who ignorantly or deliberately continue to do this are inviting trouble for themselves. The coefficient figure should consist of one figure only and that the minimum.

—o—

BIDS for exterminating service and insecticide requirements for the hospitals of New York City from February 1st to December 31st were recently closed. Among other things, the schedule called for close to 32,000 gallons of pryethrum spray and six or seven tons of roach, ant, and rat preparations. The "standard" specification for the liquid insecticide states that it "shall contain not less than .4 Pyrethrins to each 110 gallon base. Pyrethrum concentrate shall rep-

resent not less than 20 pounds of assayed, tested flowers to each gallon."

This specification means nothing. It is no guarantee that the city hospitals will receive even a fair grade spray. It leaves the door wide open for the crooked supplier. To us it seems that not only New York, but other large cities and many of the states, might with considerable benefit to themselves write an intelligent specification for their liquid insecticides.

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THE situation in food and drug legislation in Congress becomes more complicated, and as it does, the chances of the original Tugwell Bill, and the rewritten Copeland Bill, appear to become fewer of adoption. Manufacturing interests in offering substitute legislation, the Stephens-Black Bill, devoid of the serious darwbacks of the original bills, and yet designed to protect the consumer adequately, are unquestionably on the right track. A new food and drug act is going to be written and it might just as well be done with the cooperation of the manufacturer as over his opposition. Likewise a quiet rewriting of the Insecticide Act in Washington is reported to be going on. That this will receive the endorsement of insecticide and disinfectant trade leaders, is likely. In fact the original instigation for changes in this law came from the councils of the National Association of Insecticide and Disinfectant Manufacturers.

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FREE exterminating service against rats for the householder and others,—this is what the exterminators in some sections of the country have to compete with at present. The free service is supplied by none other than the Civil Works Administration and directed by health officers and representatives of the U. S. Biological Survey. They are reported to have hundreds of men at this rat exterminating work at tax payers' expense and in direct competition with the established professional exterminator. If it is the object of the CWA to throw men out of work in the exterminating trade, they are apparently going about the thing in the correct way. When there are dozens of places where CWA labor can be used without conflict with established private enterprises, why should they supply a free service in competition with the exterminating industry?

Notes of the Trade

F. O. Huckins, for a number of years sales manager for Rex Research, Inc., and the Toledo Rex Spray Co., Toledo, manufacturers of Fly-Tox, joined the specialty division of the Sinclair Refining Co., New York, January 15. Mr. Huckins will be in charge of sales in Illinois, Indiana, Ohio, Michigan, Wisconsin, and adjacent territory for Sinclair's P-D and other specialties. His headquarters will be in Chicago.

—o—

Texas Company, New York, is now producing for sale to the jobbing and distributing trades finished pyrethrum household insecticide sprays. The company states that it is offering a product with a Peet-Grady rating of 70 in bulk or in smaller packages under private brand to manufacturers and jobbers only. The company also manufactures Texide, petroleum plant spray.

—o—

Samuel Cabot, disinfectant manufacturer of Boston, has been nominated for the position of overseer of Harvard College, Cambridge. Mr. Cabot was graduated from Harvard College in the class of 1906.

—o—

Charles P. McCormick, president of McCormick & Co., Baltimore, has been elected treasurer of the Baltimore Export Managers' Club.

—o—

Enoz Chemical Co., Chicago, moved their general offices and factory on February 1 to 2430-38 Indiana Avenue, Chicago. The business of the company has expanded materially during the past few years and requires the larger quarters which have been taken over. The firm manufactures the well-known Enoz line of moth spray, fly spray, roach powder and allied products.

—o—

The quarters of Geo. B. Robbins Co., Boston, disinfectants, were considerably damaged by fire on January 18. Small damage was also sustained by the local office of National Oil Supply Co., located in the same building.

—o—

John Powell & Co., New York, have moved their offices from the 11th to the 17th floor of 114 East 32nd Street, taking over much larger quarters. The move was made primarily to give larger space to the entomological and chemical laboratories of the company, the size of which has been doubled with the addition of another Peet-Grady chamber and new chemical equipment.

—o—

Fuld Bros., Inc., Baltimore, have issued a new catalog listing their complete line of sanitary chemicals. The catalog represents a complete directory of sanitary products, some one hundred and twenty-five odd products being listed and fully described.

Commercial Cattle Sprays

By FRANKLIN C. NELSON*
Stanco Incorporated

IN presenting this paper, I wish it clearly understood that I make no claims as to its completeness and I am certain that there are many things in it that probably should be changed but due to the lateness of notification and the mass of unpublished data available, it was impossible to prepare a finished paper in such a short length of time. I have made an attempt to include at least some of the outstanding literature on the subject but here again I have left out a great many publications, not because they should be left out but simply because time was not available for a complete literature survey.

I have drawn freely from unpublished experimental data gathered during several years of research work carried on by Dr. Warren P. Moore and the writer. This work was done in the Department of Entomology at Rutgers University, New Brunswick, N. J., under the direction of the Crop Protection Institute with Dr. T. J. Headlee in charge. Inasmuch as no publication has been made, I wish to take the opportunity at this time to thank members of the Department of Entomology and the Dairy Department at Rutgers University, Dr. T. J. Headlee and other members of the Research Committee, members of the Standard Oil Development Company and many others who were of great assistance in directing the work and allowing the use of materials with which to carry on the research work. Dr. Moore has kindly consented to my free use of the data which he obtained and which I believe he may publish in more detail at a later date.

I have made no attempt to include actual data in this paper as time would not permit the proper sifting out of the most suitable material. I am simply giving some of the details involved in the development of a commercial cattle spray with the hopes that it may be of value to anyone else contemplating such research or carrying on field testing work of this type. It may also help to overcome the idea sometimes prevalent that new products are offered by reliable manufacturers without a proper background of research.

One of the earliest papers reviewed is that of E. N. Cory (4), 1914. There was a popular request at that time for cattle spray information and a 6 per cent emulsion of pine tar—creosote was recommended. Previous to this, proprietary coal tar products had caused tainting in butter. No complaint was received on this recommendation and during 1916, the uroject was run to determine the minimum strength and it was eventually decided that a 3 per cent emulsion was best. This spray gave protection at the time of milking and in some cases a short time field protection.

Rudolfs (8), 1924, studied a long series of repellent oils against three species of mosquitoes in New Jersey in three ways. First, by action of the cold materials on confined mosquitoes, second, the same materials warmed before trial and, third, by direct application of the material to the skin and tested in the open. These tests were practically all made with undiluted materials and very few of them gave protection for more than one hour. He gives a long list of repellent materials which I will not include here. The best of these materials was mixed with talcum powder, cornstarch, vaseline, etc., and these bases added considerably to the repellent time.

Freeborn and associates (9) started work in 1925 on the relation of flies and fly sprays to milk production. They state that twenty years ago there was apparently a popular demand for cattle sprays and a considerable study was taken up at that time. The cycle seemed to be repeating itself about the time of this publication and several new projects were inaugurated. Eccles, 1905, in Missouri and Beach and Clark, 1904, at Storrs Station in Connecticut, reported trials with proprietary sprays and found that the sprayed cattle did not give an increased amount of milk. In Freeborn's work this point was to be determined by carefully controlled experiments on producing dairy cattle kept in screened stalls. Flies used were Musca domestica, Haematobia irritans and Stomoxys calcitrans. Results of experiments showed that H. irritans caused only 1.4 per cent loss of milk, which is practically no loss at all. These writers claim that this fly feeds only once a day. The house fly caused a loss of 3.3 per cent, not by biting but simply by annoyance. Stable flies, Stonoxys calcitrans, caused a loss of 9.26 per cent. Here, again, he stated that these flies feed only once a day, generally in the morning. This gives a total loss of 14 per cent in milk flow, which was not considered severe and their general conclusions on this preliminary report is to the effect that spraying was not worth while as far as increased milk flow was concerned.

C. R. Cleveland (10), 1926, reported a series of tests on dairy cattle covering a two-year period with various combinations of sprays and showed that such sprays were of value at least in the general quietness of the animals. No figures were shown on increased or decreased milk flow. The various formulas used included oil of tar, kerosene, coal tar dip, fish oil, whale oil, soap, crude carbolic acid, powdered resin and other materials. He also used two proprietary sprays, two formulas of Bovinol (Standard Oil Company of Indiana), and one sample of Cow Ease, a commercial coal tar preparation. He concluded that all sprays were of some value but that two formulas were especially practical for the average dairy condition. These were (1) one gallon of used crank case oil and one pint of oil of tar, (2) one gallon of used crank case oil and one pint of chlorozone.

Haseman (12), 1927, ran tests with a number of formulae, among which were (1) coal oil and flaked naphthalene, (2) coal oil, crude oil and flaked naphthalene, (3) coal oil and crude carbolic acid or crude creosote and (4) crank case oil and flaked naphthalene. He found that horn flies attacked dark cows much worse than light cows. Cows 90 per cent or more black averaged 22.5 flies per cow and less than 90 per cent black averaged 15 flies per cow. With stable flies the reverse is true, with more flies attacking the lighter colored cows.

McIndoo (14), 1928, reviews the past history of cattle sprays and states that by 1900 a long list of aromatic oils were in use as mosquito repellents with camphor leading the list, and before 1889 very few repellents were being offered on the market. During the first decade of the twentieth century the proprietary preparations had greatly increased and it was during this period that the two most important cattle sprays were introduced. He concludes that in general repellents are not reliable remedies.

Freeborn (13), 1928, reports a continuation of the work started in 1925. In this series of tests eight cows of good production and with approximately the same period of lactation were confined in pairs in screened stalls and several treatments were given with two different types of sprays. The first spray was a bland nontoxic colorless and tasteless oil of eastern origin and spray No. 2 was a pine tar-creosote combination. The oil had a specific gravity of .8363, flash point of 340°F. and a Saybolt viscosity of 68. The pine tar-creosote spray was emulsified with sodium hydroxide and diluted with water to form several concentrations. These sprays were applied in quantities just sufficient to secure coverage. 250 cc. were used for a small Jersey cow and 500 cc. for a large Holstein. They were sprayed once daily with a pressure sprayer. One lot was sprayed with water and one unsprayed and used as a check. Results showed that the sprays reduced milk production and in the case of one cow it was necessary to stop spraying because of the serious condition resulting from such spraying. House flies were used throughout this test and conclusions were to the effect that the loss in daily production caused by flies is sometimes greatly overestimated and that often greater damage to the cows results from the sprays than from the flies.

Pearson and Richardson (20), 1933, cite the unsatisfactory methods used in cattle spray testing in the field and they offer a method of greater reliability in obtaining practical quantitative results. In their method they stake five cows in a group for each spray to be tested. They are staked far enough apart so that they are unable to rub against each other and each cow

* Read before the 20th Annual Meeting, Natl. Assn. of Insecticide and Disinfectant Mfrs., N. Y., Dec., 1933.

is sprayed in the morning at 6 A.M. with two ounces of spray material and this spraying is continued for a period of four days. Counts are made three days previous to the time of spraying to determine the susceptibility of the individual cattle to fly attack and, of course, in dividing the cattle into groups they are chosen on the basis of this susceptibility. During the spraying time fly counts are made twice per hour from 7 A. M. to 3 P. M. The spray oils used in this test, with one exception, had a viscosity of 80-85 seconds (Saybolt at 100° F.) and an unsulphonated residue of approximately 70 per cent. The one exception had a viscosity of 55-60 seconds. In all, six different spray materials were tested. With all of these spray materials, a definite decrease in the efficiency of the repellent was shown from 9 A. M. to 11 A. M. They conclude that this is probably because the flies feed heavily in the morniag and are less voracious in the afternoon. They conclude that this method is much more reliable and satisfactory than when a large number of cattle are used without separating them as to susceptibility and allowing them to run loose in the pasture.

It may be seen from the above literature that in general most of the fly sprays tested contained materials which were rather obnoxious and in many cases poisonous. These materials might very well cause enough injury to the animals to offset any benefit derived in the protection of the animal against fly attack. Very little careful experimental work has been done to actually determine just what advantage spraying has in the matter of milk production and Freeborn and his associates are about the only ones that have really carried on much work with this idea in mind. In both of their papers, they conclude, as previously stated, that milk production is decreased by the use of spray materials, probably because of the coating formed on the body of the animal by the spray material, thus building up a high body temperature and increasing the rate of respiration.. It seems to the writer, however, that the use of 250 to 500 cc. of an oil spray per application is far in excess of the reasonable amount that would normally be used and it is entirely probable that this amount of oil with the use of a power sprayer would actually coat the skin and give the results that they obtained.

I do not believe that it is fair to accept this work as a true picture of what may be expected from the proper use of a good non-toxic repellent spray material. They also kept the cattle in the barn with very little opportunity for the spray material to evaporate or to be rubbed off or washed off, as it might be in the field. In this way they most certainly built up a very much greater coating of spray than would normally be obtained. It does show very clearly what might happen if the average cattle spray is not used with some idea of the proper method of application.

It may also be seen in reviewing the literature that most of this work on the effect of sprays on the animal itself has been carried on in rather recent years. There are, of course, many publications which the writer has not included due to lack of time for preparation but judging from the statement of Mr. McIndoo to the effect that the development work on cattle sprays is of fairly recent date, I believe it is safe to assume that the papers covered represent at least a fair picture of what the literature offers. The writer also agrees with Freeborn, Richardson, et al., that probably a great deal more work has been done by commercial companies on this question than the literature indicates. This is certainly true in the case of the development of Mo-Lac (cattle spray of Stanco, Incorporated).

Unpublished Experimental Work

DURING the year 1925 the writer started work for the Crop Protection Institute on Flit studies and it was during this time that our first repellent work was begun, primarily in the hopes of making Flit not only a good killing spray but also a first class repellent spray applicable to both man and animal. Various methods of testing the repellent oils and combinations of repellent materials were used and the first of these was simply spraying cattle and observing the time the material repelled the insects. The initial tests with this were rather crude and later on in the work a much more careful effort was made to choose animals that were of approximately the same susceptibility to fly attack. Some of the tests were made with animals stabled and part of the work was done with animals allowed to roam at will in the pasture. Repellent oils were chosen from the list of best ones reported by previous workers. New ones that seemed to offer promise were supplied by Mr. D. H. Grant and others of the Standard Oil Development Company. These were mixed on the basis of 2.5 per cent essential oil in Flit minus any ingredient except base oil and pyrethrum extract. These were applied in measured amounts to one arm and leg of the writer and the other arm and leg were exposed untreated as a check.

All the preliminary work was done in the salt marsh areas of southern New Jersey where the mosquito population was very large and there was no question of continuous attack. The time elapsed from application until two actual bites were obtained was taken as a measure of repellent value. Counts were made on the check arm from time to time to make certain that the mosquito attack was approximately of the same intensity during each test. Approximately 36 different materials were tried and the best of these were sorted out and rerun several times. These were then applied to cattle but it soon became apparent that the base oil used was much too volatile to secure long time repellent effect and too likely to irritate the skin if applied in large enough quantities to obtain satisfactory protection. It therefore seemed to be evident that a special type of spray would have to be developed for animals and no further work was carried on at that time with repellent sprays.

With the transfer of the writer to Stanco Incorporated, the main burden of the work was assumed by Dr. Warren P. Moore, who replaced the writer at New Brunswick. At this time it was agreed that a special product would be necessary for application to animals and a very careful survey of the literature showed that most sprays contained poisonous or extremely odorous materials. Numerous inquiries were made among the leading dairymen and there seemed to be a need for a good non-toxic, odorless spray material. After a great deal of consideration, it was decided that a spray material should be developed that would, as nearly as possible, meet the following requirements:

1. Protection of cows from flies during milking time.
2. More or less complete control of the horn fly, depending upon the proportion of the herd that could be sprayed.
3. Complete of partial relief from injury in the pasture from all species of flies and mosquitoes.
4. Possible control of lice and other surface parasites.
5. Freedom from poisonous ingredients.
6. Freedom from danger of milk tainting, either from odor or taste.
7. Harmlessness to cattle if properly used and in quantities of not over 0.1 pint per cow per day.
8. Non-irritating to man or animal during application.
9. Rapid and effective killing of external parasites, especially flies on the animal.
10. Relatively high efficiency as a repellent both in the stable and in the open pasture.
11. A high degree of reliability in results secured when distributed throughout the world and used under every type of condition.
12. Freedom from excessive greasiness on the animal.
13. Satisfactory for general use on work animals, as well as cattle.

After setting up specifications of this type, we were then in a better position to visualize the complexity of the problem. The protection of the animal was, of course, of primary importance and in this connection it was of interest to note that Smith's "Insects of New Jersey" lists about 155 families of insects that are partially or completely parasitic on domestic animals in New Jersey alone. These are as follows:

Order	*Number of Families Represented*	*Host*
Mallophaga (bird lice)	13	Animal and fowl
Parasitica (lice)	7	Man and animal
Hamiptera (bedbug)	1	Man, animal and fowl
Siphonaptera (fleas)	3	Man and animal
Diptera—		
Chironomidae (midges)	4	Man and animal
Culicidae (mosquitoes)	38	Man, animal and fowl
Simuliidate (gnats)	5	Man and animal
Tabanidae (horse flies and gad flies)	75	Man and animal
Oestridate (botts and warbles)	5	Animal
Muscidae (house fly type)	3	Man and animal
Pupipara (sheep tick)	1	Sheep

From this it is easy to imagine what huge numbers of similar

insects exist when the whole world is considered. In addition to the true insects, there are, of course, other closely allied forms such as mite, ticks, spiders, etc., that also attack man and animal. Users of protective sprays are apt to expect complete protection against any or all of these pests under any and all conditions. It is obviously impossible to expect to obtain the same results all the time as the results obtained depend on a number of factors such as number of insects present, virulence of the insect, peculiarity of the host, weather conditions, methods of application, housing conditions, etc. Under some conditions it is absolutely impossible to obtain satisfactory results but one must nevertheless work toward the ideal condition in developing a spray of this type.

It was also obvious that it would be impossible to obtain data against all of the pests mentioned or even a small part of them. It was decided that for the purpose of this study a few of the most common pests of cattle would be used for testing purposes. These were the horn flies (Haematobia irritans) Linn., the biting house fly (Stomoxys calcitrans) Linn., the biting stably fly (Muscina stabulans), and various species of mosquitoes, the most common of which were the salt marsh mosquitoes (Ades sollicitans), the house mosquitoes (Culpex pipiens), and the swamp mosquitoes (Ades silvestris).

Type of Base Oil

BECAUSE of the information previously obtained with a light volatile oil, it was necessary to carry on a study to determine what type of oil would be the most satisfactory to meet all of the requirements previously set up. A series of petroleum oils were obtained ranging from a light volatile kerosene type to a heavy non-volatile white oil of the Nujol type. Tests on cattle, in combination with repellent oil, showed that the volatile oils evaporated much too quickly, gave a very short-time protection, and when applied freely set up skin irritations. The very heavy Nujol type was too greasy and when used in any quantity built up a coating on the animal which was both unsightly and detrimental to the health of the animal. Mixtures of these two types of oils showed some improvement but the addition of enough of the heavy oil to secure the lasting protection desired also resulted in excessive greasiness and it was apparent that such combinations were not particularly desirable.

After a considerable study of this type, it soon became apparent that a medium viscosity oil, neutral in reaction, comparatively free from odor and taste would be the most satisfactory oil to use. This type of oil remained on the host over a long enough period to give satisfactory protection but was volatile enough to assure the evaporation of a considerable portion of the oil between applications, thus preventing the building up of a greasy coating or a dirty condition of the animal. Tests with such an oil also showed that it had a fair degree of repellency of its own and that it was also fairly toxic to the insect. Even the white oils alone were decidedly repellent to the biting house fly (Stomoxys calcitrans) and some of the horse flies, but not at all repellent to the house fly (Musca domestica). In general, it may be stated that the results showed a greater degree of repellency with the heavier oils but because of other objections the less viscous oils were necessary.

Toxicity of the Spray

FOLLOWING the choice of a proper base oil, it then became necessary to build up the toxicity of the spray so that it would kill insects rapidly. Speed of paralysis was absolutely essential in the case of the horn flies (H. irritans). These flies usually remain on the cow during the spraying and if they do not drop quickly the consumer naturally decides that the spray is of poor quality regardless of whether or not it may be an especially good slow killer or an excellent repellent. Because of previous work on household sprays, pyrethrum was immediately adopted for this purpose because of its non-toxic effect on warm-blooded animals and because it gave quick paralysis and good final kill. The use of pyrethrum extracts, of course, gave a slightly yellow color to the spray but as long as the odor and taste remained satisfactory a slight color was not considered objectionable.

After having built up this combination to a point in toxicity which seemed to be satisfactory further experiments were carried on to determine the effect of pyrethrum extract from the standpoint of repellency. Tests with the oil alone against the oil-pyrethrum combinations showed quite definitely that the addition of pyrethrum added a great deal to the repellent value, as well as to the killing power. This combination, therefore, seemed to be satisfactory for application to the host, gave a good kill and prevented attack for a moderate period of time. It then became necessary to include some material which would build up the repellent value to a satisfactory point to give as nearly complete protection as possible against biting flies and mosquitoes by two spray applications per day.

Studies on Repellents

AS previously stated, the writer had carried on some repellent work in a small way during 1925 and 1926 and some 36 materials were tested. Of these terpinyl acetate seemed to offer the most promise. Two or three others were relatively good repellents but all of these repellents were of the volatile, odorous type and their inclusion in a cattle spray left open the chance of tainting the milk supply if the spraying was done during the milking period.

Dr. Moore then started his work on repellent sprays, again choosing the materials previously indicated as being the most promising by the writer and other workers. A review of these best repellents seemed to be rather confusing as far as determining why they should be superior to other materials was concerned. However, after considering the probable chemical composition of the substances which were reported to be effective, most of them were found to contain cyclic alcohols. A few which had given very good results were found to be cyclic esters. The hypothesis was therefore adopted that a suitable repellent for our purpose would probably be a cyclic ester comparatively odorless and of very slow volatility.

A series of comparative tests were made against house flies in which eight cyclic esters were compared with thirteen other repellents. The superiority of the esters was very clearly shown. The repellent value of pyrethrum extracts was also again shown. In running these tests various methods of comparison was used, one of which consisted of filter papers dipped in molasses. The molasses was allowed to dry and the repellent materials were dropped from a pipette on the papers and placed in a location where the flies would be most apt to visit them in large numbers. This method, of course, was in no way supposed to represent actual field conditions, but it did give very satisfactory results as far as actual comparative data between the various products used were concerned. Counts of flies were made on the papers at frequent intervals and other indications, not readily described, helped the observer to pick out the most efficient materials. One of the indications, when the flies were not too plentiful, was the fact that in sucking the molasses from the paper white spots were formed and some indication could be secured by observing the numbers of white spots per paper between readings. This was not a satisfactory indication after the molasses became partially cleaned off.

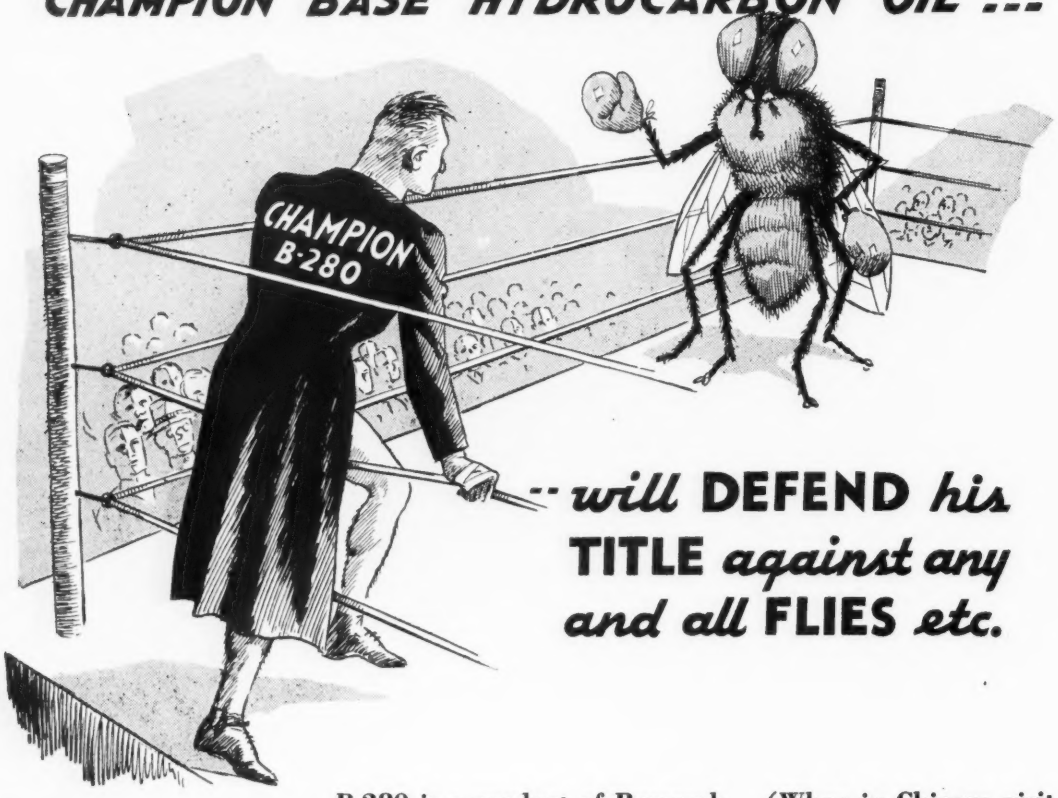
Along with this preliminary test work, further actual tests were continued on animals which had been previously selected because of their uniformity of susceptibility to fly attack. Some of the animals were kept in the stable and others were allowed to pasture.

After having determined that various types of esters were superior to other repellents, Mr. Buc of the Standard Oil Development Company was asked for a list of available cyclic esters having suitable properties and which might be good repellents. After due consideration, it was decided that the ester, diethyl phthalate, seemed to have all the characteristics required in a repellent for use in a cow spray of the type described. This material was therefore incorporated in the oil-pyrethrum combination and a large series of tests were run against similar combinations of other repellents previously found to be the best. Both the terpinyl acetate and alkyl phthalates are covered by patent.

Both the filter paper method and cattle spraying showed very definitely that the diethyl phthalate combination was by far the most satisfactory repellent material which had been found. The terpinyl acetate combinations also showed up rather satisfactorily but this material was volatile and had a considerable

(*Turn to Page* 97)

The NEW KILLER--B-280
CHAMPION BASE HYDROCARBON OIL ---



-- will DEFEND his TITLE against any and all FLIES etc.

Notice the remarkable odor before and after.

Notice to Manufacturers: We manufacture Base Hydrocarbon Oil only. We are not manufacturers of fly sprays.

B-280 is a product of Research. (When in Chicago visit our Research Laboratories at 3921 E. Ravenswood Avenue —15 minutes from the "Loop") (4500 square feet of floor space devoted to Petroleum Research for Industries).

Ask the Cleaning Industry about "STOD-SOL;" the Rubber Industry about "RUB-SOL" or "PETROBENZOL;" the Lacquer Industry about "TROLUOIL;" the Varnish Industry about "APCOTHINNER," they are all Internationally known "Industrial Naphthas" manufactured by this company. We now enter your Industry and offer "B-280" for your approval.

For technical data or samples, address the company at 3921 East Ravenswood Avenue, Chicgo, Ill.

ANDERSON-PRICHARD OIL CORPORATION

PRODUCERS AP REFINERS

OKLAHOMA CITY, OKLA.

BRANCHES IN ALL PRINCIPAL CITIES

Dollars and Scents

A Discussion of the Commercial Value of Odor

By A. L. VAN AMERINGEN*

President, van Ameringen-Haebler, Inc.

WHILE Henry Ford was manufacturing and selling millions of his Model T cars, it was extremely difficult, if not impossible, for anybody to convince him that his product should be improved. His answer to all such critics undoubtedly was: "Is there any motor car manufacturer more successful than I am? Why change?" Nevetherless, this attitude caused Ford tremendous losses, due to the fact that other manufacturers capitalized on his inactivity and won a large part of the low-priced car field with considerably improved models, answering the public demand for such an improved car. Today, even with the tremendously improved Ford product, those other manufacturers are very serious competitors in a field which Ford still could have dominated if he had been willing to change his model at a time when it was still the only one in its field.

Although it may sound paradoxical, it is often extremely difficult to determine whether a commercial effort has been successful or has failed badly in attaining its object. Success is a rather relative term, and a result that may be considered successful without comparison may seem to approach the stature of failure when compared with results obtained elsewhere under similar conditions.

As soon as a manufacturer is showing profits, it immediately becomes difficult to convince him that regardless of those profits, better results could be obtained with an improved product—and the larger the profits obtained under the inferior conditions, the more difficult becomes the task of convincing the manufacturer of the advisability of a change.

It would be ridiculous to deny that the fly spray industry in this country, many of whose members are represented in this room, has built up businesses showing very satisfactory profits, but it nevertheless remains a fact that to the outsider, it is unbelievable that so little progress has been made in producing a fly spray more pleasant to the consumer.

It is a typical instance of an industry starting out with a product that could be considerably improved, but due to the initial success, the advantages of such an improvement were lost sight of by the manufacturers. While from the beginning, very great efforts had been made to improve the effectiveness of the fly sprays and much serious scientific work has been accomplished, in most instances the fly spray of today is as disagreeable to the users as it was years ago.

The perfuming of fly sprays has generally consisted of adding perfume materials to the fly spray, that were often only slightly less disagreeable than the kerosene odor which they sought to cover. Mirbane, Methyl Salicylate and Sassafras Oil were the great stand-bys of the fly spray manufacturer, without realizing that their so-called "perfumes" did not meet with public approval.

A census conducted by this Association a few years ago seemed to prove that most women would prefer an odorless fly spray. I strongly disagree with the conclusion reached by this census, and base my opinion on the experience gathered during many years with public tests, as far as odors are concerned.

In many instances I have found that the preference for a certain product was unconsciously due to an odor reaction, the subjects rendering the opinion being totally unaware of the fact that their opinion was produced by nothing else but an odor. The most remarkable proof of this contention was made when four identical pairs of silk stockings were submitted to one thousand women, who were asked to decide which pair they considered the best. The four pairs were taken from one run and were absolutely identical, except that one pair was very faintly perfumed. Ninety-six per cent of the women picked the perfumed pair as the best quality, although never during this test did any women remark about the odor.

Not only women are susceptible to the unconscious effect of odor, but men react in exactly the same way. A manufacturer of toilet preparations for men sent out questionnaires to large groups of men, inquiring whether they would prefer an odorless shaving cream over a perfumed one, and the answers were overwhelmingly in favor of an unperfumed product. We have here identically the same situation as your Association was confronted with when canvassing women about their wishes in regard to fly sprays. When a few months later, the manufacturer submitted to the same group of men two identical shaving creams, one unperfumed and the other perfumed, with the request that they tell which product they liked better, over 90 per cent of the men claimed that the perfumed shaving cream was a better product. And I want you to keep in mind that here again, as in the case of the silk stockings, the question was not asked "Which product do you like better—the perfumed one or the unperfumed one?", but the only question which

* Address before the 20th Annual Meeting, Natl. Assn. of Insecticide & Disinfectant Mfrs., New York, Dec., 1933.

FOR THE BETTER GRADE PRODUCT

We Recommend:

FOUGERE SUPREME $6.00 per pound
BOUQUET HENO $6.00 per pound
ROSE SUPREME $8.00 per pound
LILAC SUPREME $8.00 per pound
BOUQUET G-2328 $4.00 per pound

DEVELOPED by our laboratory for use in PARADICHLORBENZENE and NAPHTHALENE preparations that are sold on a quality basis and where a distinctive high grade perfume is an asset. While slightly higher in price than perfume oils usually employed in this type of work they justify their costs by the excellent results they give. So that you may readily determine their value we have incorporated these odors in paradichlorbenzene and naphthalene and will gladly submit such samples to you.

We are in a position to extend the fullest cooperation to manufacturers as regards special odor requirements and will welcome any opportunity to work with you in the solving of your particular perfume oil problem. If you are not fully satisfied with your present oils why not give us a chance to submit samples for purposes of comparison?

MEMBER NATIONAL ASSN. INSECTICIDE AND DISINFECTANT MFRS. INC. 1914 INC.

P. R. DREYER INC.

12 East 12th Street New York City

"It's the Odor that Sells the Product"

was asked was "Here are two different qualities of shaving creams. Which one do you prefer?"

It is peculiar but nevertheless a fact, that many people do not associate perfumes with anything but cosmetics or handkerchief extracts, and as soon as their opinion is asked on a product outside of those two groups, they will, without any hesitation, claim that they prefer an unperfumed product. You may all be familiar with the fact that the textile industry, as well as the rubber industry, are using perfume materials in their products, but you can rest assured that practically all women, in answer to a questionnaire, would claim that they would prefer an unperfumed raincoat to a perfumed one, although actual experience has shown the opposite.

In what respects are the above facts influencing your sales? I'll try to answer this question. In most instances, you will find that a fly spray is used only when the fly pest becomes extremely disagreeable, and many a housewife will defer using her fly spray on account of the unpleasant effect on her olfactory nerves. This objection would be eliminated if this either conscious or unconscious disagreeable reaction on her nose did not exist, and your sales would benefit considerably by the increased use.

A shining proof of this claim can be found in the Middle West, where a manufacturer of fly sprays puts out a product possessing such an agreeable odor that many apartment dwellers are using his product not only as a fly spray, but apply it regularly to overcome the disagreeable cooking odor which is so noticeable in confined living quarters. Again unconsciously his customers have found a new use for his fly spray, which at the present time consumes considerably more of his product than the purpose for which it was originally created—the killing of pests.

The improving of any product through its odor value is a combination of science and art, and far more complicated than a man who has not made a special study of this subject would think. This is undoubtedly the reason that the pioneers in the fly spray field, not fully realizing the difficulties and importance of this subject, grabbed the first cheap and strong-smelling substance they could think of, and by adding this to their spray, considered their product perfumed. The success of the product, even handicapped as it was with an unsatisfactory odor, caused them to overlook the importance of this shortcoming in their manufacturing and thereby created the idea in the minds of many manufacturers that the odor of their product is, after all, a very unimportant factor towards its success.

I am willing to go on record as saying that even with the new odorless solvents, a fly spray made with such an odorless solvent, when unperfumed, will lose out in customers' appeal in comparison with that same fly spray when scientifically perfumed.

It is impossible to discuss the matter of better perfumed fly sprays without considering the increased cost and the effect it will have on net profits. Net profits are, after all, the only measure-staff—a measure-staff far more important than the gross profit per sale—and it has been our experience that the increased cost produced by a better perfumed spray has been more than offset by the increased sales, the resultant reduced overhead, and increased net profit at the end of the year.

Our industrial life moves forward very fast, and the greatest danger for any business man is to be lulled asleep by a success which is not as great as it could be. He will wake up some day to find that a wide-awake competitor has taken away a large part of his business, and he is then forced anyhow to take those steps which he could have taken several years previously. Remember Model T!

—o—

Pyrethrum flowers may be extracted in an extraction column in the form of a mass containing interstices. A solvent such as kerosene is distributed over the flowers at a rate less than sufficient to flood the interstices of the material with solvent, so that the solvent is caused to flow substantially only over the exterior surfaces and through the intercellular surfaces of the flowers, and the resulting comparatively concentrated extract is withdrawn from the bottom of the extraction column. The apparatus is described. Nicholas A. Sankowsky (to Standard Oil Development Co.).—United States Patent No. 1,933,077, dated October 31, 1933.

—o—

The municipality of Jersey City, N. J., has recently undertaken an intensive campaign to rid the city of rats. The work will be conducted under the direction of A. M. Mills, a member of the United States Biological Survey. Over a hundred men will be employed in the drive. The men were assigned to this work by Arthur Potterton, administrator of the C. W. A. Headquarters have been established at the municipally owned pier B, at York Street and the Hudson River.

—o—

Dr. S. S. Goldwater, New York City Commissioner of Hospitals, announced Feb. 1 the awarding of a contract to the United Chemical and Exterminating Co., New York, for exterminating vermin and rodents in all of the twenty-six city hospitals for the remainder of the year. There were eight bidders, the United company bidding low at $18,660.

—o—

Tanglefoot Co., Grand Rapids, Mich., is introducing a new plant spray under the "Tanglefoot" brand. It is non-poisonous and recommended for use against ants, fleas and plant lice.

—o—

An insecticide or insect repellent comprises a petroleum white oil, an extract of a plant belonging to the class known as fish poisons and an emulsifying agent. D. H. Grant. Ass. Standard Oil Development Co. U. S. Patent 1,934,057.

DEO-BASE

Reg. U. S. Pat. Off.

No Kerosene Odor-

The time is close at hand when all liquid insecticides will have to be free from that tell-tale residual odor of kerosene. It is one of the greatest sales obstacles today. Eliminate it by using DEO-BASE—a petroleum oil refined to complete freedom from kerosene odor.

—•—

Liquid insecticides made with DEO-BASE find ready acceptance by housewives, the best hotels, dairies, bakeries, clubs, food markets . . . in fact, wherever the kerosene odor of ordinary sprays is found objectionable.

—•—

DEO-BASE conforms in every detail with the specifications of the National Association of Insecticide & Disinfectant Manufacturers.

—•—

Specifications of DEO-BASE

Specific Gravity	0.775-0.785
Sayboldt Viscosity at 100° F	30 Secs.
Flash Point (Open Cup)	170° F.
Initial Boiling Point	370° F.
End Point	490° F.
Unsulfonatable Residue	Above 98%
Color	Water-White

L. SONNEBORN SONS, Inc.

Refiners of White Oils and Petrolatums

NewYork Office
88 Lexington Avenue

Refineries {Petrolia, Pa.
{Franklin, Pa.

Chicago Office
820 Tower Court

Patent Stabilized Rotenone

In announcing a new stabilized rotenone liquid extract on which patents have been filed by his company, D. B. Faloon, president of the Hammond Paint & Chemical Co., Beacon, N. Y., also predicted the eventual end of the use of poisonous insecticides such as the arsenicals and fluorine compounds. He believes that the Food & Drug Administration of the Department of Agriculture will be forced in time to act to prohibit the use of all poisonous insecticides on food crops. The method of stabilization applies to both rotenone and pyrethrum extracts, which it is stated, can be stabilized for an indefinite period of time. Dusts and powders of debris and pyrethrum can be guarded against deterioration for a period six to ten times greater than similar products not so processed, the company states. Chemists for the firm have been working on the development for the past three years. Mr. Falcoon states that he sees the replacement in the near future of several million pounds of poisonous insecticides yearly on fruit and vegetable crops by rotenone and pyrethrum dusts and sprays. He also states that the stabilization processing does not add materially to the cost of the products.

—o—

R. M. Hollingshead to Reorganize

Plans for the reorganization of R. M. Hollingshead Co., Camden, N. J., soaps and lubricants, are progressing under the direction of a committee consisting of: John Nicerson, Jr., New York; A. B. Green, Cleveland; John A. Packard 3d and Clarence E. Hall, both of Philadelphia. The committee proposes to offer pursuant to a plan of readjustment or reorganization debenture bonds in the amount of $250,000, also $317,500 of first preferred stock, $337,050 of second preferred stock and Classes A and B common stock of $1,000.

—o—

W. Benkert & Co., New York, importers and millers of pyrethrum and derris products, announce that Russell B. Stoddard, who formerly represented them in the Baltimore and Washington territory, is now located permanently at their main office where he will specialize in the sale of insecticide raw materials. Mr. Stoddard is well-known in the trade, having been connected with Van Ameringen-Haebler, Inc. and Ungerer & Co., New York essential oil houses for several years prior to locating in Baltimore as district representative. The main office of W. Benkert & Co. has been moved from the 8th to the 12th floor at 100 Gold Street, where a 150 per cent increase in floor space is being occupied.

—o—

George M. Armor, vice-president of McCormick & Co., has been elected a member of the board of directors of the Baltimore Union Trust Company.

—o—

Magnus, Mabee & Reynard, Inc., New York, have recently issued a new price list and catalog for January-February, 1934.

N. Y. Exterminators Meet March 26

The annual meeting and election of officers of the Society of Exterminators and Fumigators of New York will be held March 26, probably at the Park Central Hotel, New York, according to a decision reached at a regular quarterly meeting on January 30 at the Knights of Columbus Building, New York. At the quarterly meeting Dr. Edward Bocker of the New York Department of Health was the chief speaker, talking on legislation and its effects on the exterminating business. The proposed code for the industry was also discussed briefly, it being stated that a public hearing in Washington would likely to be held in the very near future. CWA activities in private rat exterminating work was discussed. The society has protested to the CWA authorities against this work being done free in competition with its members. A moninating committee to select a slate for 1934-35 officers was elected as follows: William Shrimplin, Rose Rat Exterminating Co., Kenneth Tompkins, Bliss Exterminator Co., Luther Vogel, Atlantic Exterminating Co., J. L. Huberman, Scientific Exterminating Co., and George Saunders, Saunders Exterminating Co. William Buettner, president of the Society, presided at the meeting.

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F. T. C. Reports on Drug Surveys

The U. S. Federal Trade Commission made public on December 30 four reports based on its survey of margins and discounts in chain and independent drug stores of Washington, Cincinnati, Memphis and Detroit. The reports showed that selling prices for the independent drug stores were, on the average, higher than those of the chain stores but at the same time the independents' costs were higher. For the drug business in Washington the comparison showed the selling prices of independents to be on the average 22.72 per cent higher than those of the chains, and their average costs 3.27 per cent greater. In Cincinnati the independent drug distributors in 1929 sold at a price 20.35 per cent higher on the average than did the two principal chains, while their costs were 1.81 per cent higher. Independent distributors in Memphis in 1930 sold at an average price of 20.69 per cent higher than the average of two principal chains, and their average costs was 1.38 per cent higher. The report on the study of the drug business in Detroit in 1931 shows the average selling price of independent distributors as 17.48 per cent higher than that of the three leading chains, with average costs 3.88 per cent higher.

—o—

Protests against the proposed legislation in Massachusetts requiring a poison label on fluoride and other insecticides, and restricting them to quarter-pound or smaller metal containers, have been filed by fluoride interests and insecticide manufacturers. It is held that the bill would practically shut off the sale of small package insecticides and rat products at retail in the state.

FELTON

Quality

Spray Odors

Will give to your insecticide spray a delightful perfumed smell.

Airdoux	@ $1.00	per lb.
Parispray	@ 1.25	per lb.
Lilac F. S.	@ 1.75	per lb.
Kerex L'Orient	@ 2.25	per lb.
Kerex Bouquet	@ 2.50	per lb.
Kerex Sweet	@ 4.50	per lb.

(Use 1 ounce to 5 gallons Spray)

Aquaromes

(water-soluble perfume oils)

For theatre sprays and for liquid soaps and shampoos.

(will NOT cloud your soap)

Specify for what purpose you want to use them, and the proper samples will be sent to you.

Price range from $1.50 to $6.00 per lb.

We also manufacture a series of Aquaromes producing a milky solution and especially designed for Formaldehyde sprays.

Coloromes

They thoroughly perfume and color your Deodorizing Blocks and Crystals in one single operation.

(Some of the outstanding numbers)

Oriental O. D.-Green	@ $1.75	lb.
Pine Cones German-Amber	@ 1.75	lb.
Lilac-Purple	@ 1.75	lb.
Orange Flower-Amber	@ 2.75	lb.
Violet-Purple	@ 2.75	lb.
Rose-Pink	@ 2.75	lb.

Formaromes

Blend perfectly with Formaldehyde, adding a pleasant scent to the product.

Formaromes Series A. $1.90 lb.
for perfuming without clouding, full stregth Formaldehyde.

Formaromes Series G. 75c lb.
for perfuming Formaldehyde sprays containing from 5 to 10% Formaldehyde.

(A selection of adequate odors)

FELTON CHEMICAL COMPANY, INC.

Executive Offices and Factory—599 JOHNSON AVE., BROOKLYN, N. Y.

Chicago, Ill., Offices—1200 NORTH ASHLAND AVE.

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1200 No. Ashland Ave.

NEW ORLEANS, LA.
ROBERT E. FELTON
Balter Bldg., Rm. 407

Dougan Appoints 1934 Committees

Committees of the National Association of Insecticide & Disinfectant Manufacturers for 1934 were appointed by President Peter Dougan as follows:

DISINFECTANT COMMITTEE

Dr. Geo. F. Reddish, Chairman.....Lambert Pharmacal Co.
Chas. Auerbach.....West Disinfecting Co.
C. C. Baird.....Baird & McGuire, Inc.
H. M. Clark.....Dr. Hess & Clark, Inc.
W. B. Eddy.....Rochester Germicide Co.
H. W. Hamilton.....White Tar Co. of N. J.
L. O. Hillyard.....Midland Chemical Labs.
H. A. Nelson.....Chemical Supply Co.
James Varley.....Baird & McGuire, Inc.
J. A. Walsh.....C. B. Dolge Co.
Dr. Wm. Dreyfus.....Of Standardization Section
Dr. Emil Klarmann.....Of Scientific Section
Dr. H. D. Pease.....Of Nomenclature Section

Disinfectant Standardization Section

Dr. Wm. Dreyfus, Chairman.....West Disinfecting Co.
Dr. Emil Fanto.....McKesson & Robbins, Inc.
Burton G. Philbrick.....Skinner & Sherman, Inc.

Disinfectant Scientific Section

Dr. Emil Klarmann, Chairman.....Lehn & Fink, Inc
William A. Hadfield.....General Laboratories
J. A. Cavanagh.....Dow Chemical Co.

Disinfectant Nomenclature Section

Dr. H. D. Pease, Chairman.....Pease Laboratories
Harry W. Cole.....Baird & McGuire, Inc.
W. L. Savell.....Mathieson Alkali Works

INSECTICIDE COMMITTEE

W. J. Andree, Chairman.....Sinclair Refining Co.
R. O. Cowin.....Standard Oil Co. of Ohio
W. G. Griesemer.....Black Flag Co.
F. G. Hunt.....Shell Petroleum Corp.
John Curlett.....McCormick & Co.
F. O. Moburg.....Rex Research, Inc.
Chas. F. Opitz.....John Opitz, Inc.
Wallace Thomas.....Gulf Refining Co.
Dr. Robert C. White.....Robert C. White Co.
W. J. Zick.....Stanco, Inc.
Dr. Chas. H. Peet.....Of Standardization Section
Dr. Alfred Weed.....Of Scientific Section

Insecticide Standardization Section

Dr. Chas. H. Peet, Chairman.....Rohm & Haas Co.
Dr. T. J. Albert.....Black Flag Co.
Dr. A. E. Badertscher.....McCormick & Co.
N. J. Gothard.....Sinclair Refining Co.
Geo. A. McLaughlin.....McLaughlin, Gormley, King Co.
F. C. Nelson.....Stanco, Inc.
Dr. Alfred Weed.....John Powell & Co.
Robert C. White, 2nd.....Robert C. White Co.

Insecticide Scientific Section

Dr. Alfred Weed Chairman.....John Powell & Co.
R. W. Birdsall.....Derris, Inc.
Dr. Thomas Lewis.....S. B. Penick & Co.
Edgar A. Murray, Jr.....Edgar A. Murray Co.
H. P. Smith.....Reliable Manufacturing Co.

LIQUID SOAP COMMITTEE

R. H. Young, Chairman.....Davies-Young Soap Co.
J. L. Brenn.....Huntington Laboratories
W. R. Hills.....Masury-Young Company
F. J. Pollnow.....Vestal Chemical Co.
L. B. Schwarez.....Clifton Chemical Co.
S. S. Selig.....The Selig Co.

Special Committee, Amendment Insecticide Act

Peter Dougan, Chairman.....Merck & Co.
C. C. Baird.....Baird & McGuire, Inc.
William H. Gesell.....Lehn & Fink, Inc
Dr. Geo. F. Reddish.....Lambert Pharmacal Co.
J. H. Wright.....Zonite Products Corp.

Committee on New Food and Drugs Act

William H. Gesell, Chairman.....Lehn & Fink, Inc.
J. H. Wright.....Zonite Products Corp.
Dr. Wm. Dreyfus.....West Disinfecting Co.
C. C. Baird.....Baird & McGuire, Inc.
Dr. John H. Glassford.....McCormick & Co.

CODE COMMITTEE

To cease when the Code of Fair Competition for the Insecticide and Disinfectant Industry is approved by the Recovery Administration Board and signed by the President of the United States.

Dr. Robert C. White, Chairman.....Robert C. White Co.
J. L. Clark.....Dr. Hess & Clark, Inc.
W. J. Zick.....Stanco, Inc.
W. L. Savell.....Mathieson Alkali Works
W. G. Griesemer.....Black Flag Co.

CODE AUTHORITY COMMITTEE (Elected)

Dr. Robert C. White.....Robert C. White Co.
H. M. Clark.....Dr. Hess & Clark, Inc.
W. G. Griesemer.....Black Flag Co.
W. B. Eddy.....Rochester Germicide Co.
J. L. Brenn.....Huntington Laboratories
W. J. Andree.....Sinclair Refining Co.
W. J. Zick.....Stanco, Inc.

Two more men are to be selected or elected to this committee by members of the industry who are not members of National Association of Insecticide and Disinfectant Manufacturers, Inc.

National Councillor to Chamber of Commerce of the U.S.A.

F. W. Wolff.....E. I. duPont de Nemours & Co.

MEMBERSHIP COMMITTEE

John Powell.....John Powell & Co.
J. A. Altenbern.....Wizard, Inc.
S. H. Bell.....Koppers Products Co.
W. H. Plunkett.....Plunkett Chemical Co.
W. J. Wagner.....The Tanglefoot Co.

CONVENTION COMMITTEE

H. W. Hamilton, Chairman.....The White Tar Co. of N. J.

Program Committee

For Chicago Meeting in June

J. L. Brenn.....Huntington Laboratories
H. A. Nelson.....Chemical Supply Co.

For Annual Meeting in December

J. A. Walsh.....C. B. Dolge Co.

Publicity Committee

Ira P. MacNair.....MacNair-Dorland Co.

Entertainment Committee

Grant A. Dorland.....MacNair-Dorland Co.

Arrangements Committee

John Powell.....John Powell & Co., Inc.

LIQUID SOAP BASE
&
SHAMPOO BASE
IN
BAR FORM

For your convenience. Does away with messy digging out. A uniform Liquid Soap easily made with Base Bars without the trouble of weighing. Each bar weighs 5 lb. net. Dissolves readily into clear solutions.

This product will save you money, time and labor.
Send for further information, samples and price.

NEW YORK SOAP CORPORATION

294 PEARL STREET — NEW YORK CITY

Liquid Soap 10% to 50%
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Other Quality Products

Shampoo Base
Liquid Shampoo

Liquid Soap Super-Concentrate
Self Polishing Floor Wax
Soft Potash Soaps

"SERRID" PRODUCTS *of* DERRIS ROOT

A complete range of Derris products uniform as to qualities, standardized as to Rotenone content, and sold on this basis. Available in large quantities to manufacturers of insecticides.

For Fly Sprays
"SERRID" DOUBLE X

A combination Rotenone pyrethrum oil concentrate that will stay in solution,—a decided improvement in the field. Sold on a kill basis as high as 85%. With this base manufacturers may improve their product and lower their costs.

For Agricultural Sprays
"SERRID" SUPERSPRAY

A finished concentrated liquid plant spray sold in bulk for repackaging. Highly effective against mealy bug and red spider. Tested and proven by prominent entomologists.

DERRIS, Inc.

79 WALL STREET, NEW YORK

MEMBER NATIONAL ASSN. INSECTICIDE AND DISINFECTANT MFRS. INC. 1914 INC.

Powdered Root, standardized, is most effective in household powders. For protection of vegetable and fruit crops, powdered Derris Root is not only efficacious but leaves no poisonous residue.

Efficiency of Derris-Pyrethrum Combinations

A comparison has been made of the insecticidal efficiency of kerosene extracts of derris alone and in combination with pyrethrum. Extraction was carried out in the proportion of 23.8 grains of derris root containing 2.9 per cent rotenone to 100 cc. of kerosene. Pyrethrum extracts were prepared on the basis of 11.9 grains pyrethrum powder containing 0.26 per cent pyrethrin I to 100 cc. kerosene. Derris extract acted more rapidly on the house fly than kerosene alone, and mortality after 24 hours was much greater. Compared with pyrethrum extract, derris extract acted more slowly, whereas mortality at 24 hours was significantly greater. A solution of 16.6 cc. of the derris extract and 83.3 cc. of the pyrethrum extract equalled the pyrethrum extract alone in speed of action and exceeded the latter in final mortality. Kerosene apparently extracts something other than rotenone, which increases its toxicity to house flies. Kerosene extracts of quassia and of hellebore were not significantly greater in toxicity to house flies than kerosene itself. In preparing sprays from commercial acetone extracts of derris, containing 2.3-5 per cent rotenone and 16-18 per cent of total extractions large quantities of a precipitate are formed when the extract is added to 250-500 or more parts of water, aqueous soap solutions or various other wetting agents. This precipitate clogs spray nozzles, and as it occludes active constituents, the spray is rendered less effective. If diluted 1:1 with acetone before the water of aqueous solutions are added, the formation of this precipitate is prevented. Residues from sprays prepared in this way with sulfonated castor oil (1:400) retain their toxicity to thrips much longer than when potassium cocoanut oil soap (1:300) is the wetting agent. The spray possesses good wetting properties. Henry H. Richardson. *J. Econ. Entomol 26*. 914-15, 995 (1933).

—o—

In rapidly generating a definite quantity of hydrogen cyanide for fumigating, a predetermined amount of sodium cyanide is caused to react with the equivalent amount of sodium acid sulfate in the presence of an amount of water to give a molecular ratio, H_2O:NaCN, of 10:1, an optimum yield of gas being thereby generated in a short time. A. Standen, T. Ewan and I. C. I. Brit. Pat. 395,761.

—o—

Testimony is being taken in New York and Chicago in Pepsodent Company's opposition proceeding against the "Pearldent" trademark of Comfort Manufacturing Co., Chicago, for its tooth paste. The Pepsodent Co. claims infringement of its "Pepsodent" trademark.

—o—

The mother of Harry W. Cole, vice-president of Baird & McGuire, Inc., Holbrook, Mass., and a member of the board of governors of the National Association of Insecticide & Disinfectant Manufacturers, died February 1 at Frederick, Md., the birthplace of Mr. Cole.

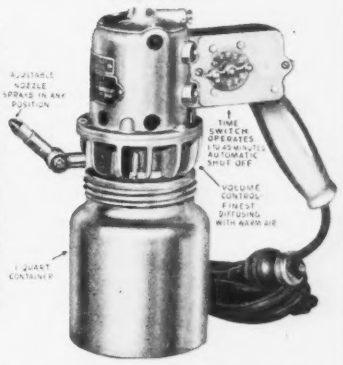
HERE IT IS!

AUTOMATIC—SAFE—TROUBLE FREE
FINEST CONTROLLED ATOMIZATION
WITH THE NEW

TORNADO ELECTRIC SPRAYER

MODEL 54

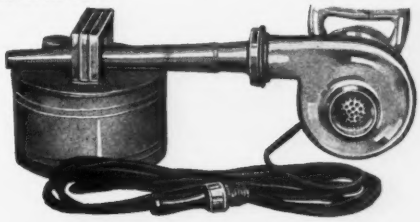
Here is the new sprayer you've been looking for. It features an automatic time switch set at any point from 1 to 45 minutes—sprays desired amount without any attention whatever—automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. Don't fail to get the facts on this new type sprayer before buying.


ADJUSTABLE NOZZLE SPRAYS IN ANY POSITION
TIME SWITCH OPERATES 1 TO 45 MINUTES AUTOMATIC SHUT OFF
VOLUME CONTROL FINEST DIFFUSING WITH WARM AIR
1 QUART CONTAINER

Also Most Complete Line of Electric Sprayers to Enable You to Meet Every Spraying Problem

Model 53 new Compressor Type unit with new adjustable volume control. Will break insecticide into *finest* mist and gas formation mechanically obtainable. Floats throughout spraying area for many minutes—a truly de luxe model! 1/8 H.P. G.E. Universal Motor. 1 quart metal container. 20′ of rubber covered cable.

Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8′ to 10′. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20′ of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18′ to 20′. 1/3 H.P. G.E. Universal Motor, Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO.

862 Blackhawk Street **Chicago, Ill.**

We do not sell insecticides. Our business is manufacturing sprayers.

NRA
WE DO OUR PART

KOPPERS

TAR ACIDS
CRESOL U.S.P
CRESYLIC ACID
98% & 100% • STRAW COLOR
TAR ACID OILS
PHENOLS
NEUTRAL
HYDROCARBON OIL

KOPPERS PRODUCTS COMPANY
1249 KOPPERS BUILDING
PITTSBURGH, PA.

HUDSON
SPRAYERS

IN YOUR 1934 CAMPAIGN ON INSECTICIDES, GIVE CAREFUL THOUGHT TO THE IMPORTANCE OF *CORRECT APPLICATION*

The surest way to make a profit in 1934 is to build your merchandising efforts around that star performer, *repeat business*. And a big step in that direction is a means of controlling the method of application of your insecticide.

A great deal more than labor and material are involved in making Hudson sprayers. A thorough job of mechanical and scientific engineering goes into the building of our insecticide sprayers. Proper break-up . . . the correct degree of atomization . . . is all-important to you. It means the difference between successful application and poor results. You cannot afford the latter. You CAN insure the former.

Hudson offers still further improvements in sprayers for 1934. Get all the facts before going ahead on *your* program. There is a special Hudson representative near you.

H. D. HUDSON MFG. CO.
589 E. ILLINOIS ST. CHICAGO

Michigan Introduces New Fumigant

A new fumigant, known as malium, which in ordinary concentrations is said to be entirely harmless to human beings, has been introduced by Michigan Alkali Co., New York. It can be used in the fumigation of industrial plants as well as ships, hotels, restaurants and homes. It is used without heating or the addition of other chemicals. Malium is a colorless, volatile liquid, with scarcely any odor, made from a combination of carbon dioxide with newly developed synthetic chemicals. Besides being odorless, tasteless and colorless to human beings, it is said to leave no residual odor or taste in foodstuffs.

—o—

Hearing on Agricultural Insecticide Code

A public hearing was held February 7th on the code for the agricultural insecticide and fungicide manufacturing industries. Deputy Administrator Charles H. Herty presided. The code called for a basic forty-hour work week and fixed minimum wages at 40 cents an hour in the north and thirty-five cents in the south. Concerns in these industries have recently formed the Agricultural Insecticide and Fungicide Association which represents approximately eighty per cent of the industry. L. S. Hitchner president of Luca Kil-tone Co., has been elected president of the association.

—o—

Henry Pfaltz, former president of Pfaltz & Bauer, Inc., New York, died January 29 at his home in Newark, N. J. Mr. Pfaltz was born in Offenbach, Germany, December 31, 1862, and came to the United States in 1886. In 1900 he founded the firm of Pfaltz & Bauer, specializing in the importation of chemicals, essential oils and raw materials. From the time of the incorporation of the firm in 1913, Mr. Pfaltz acted as its president until his retirement in 1927. His widow, Lily M. Pfaltz, a daughter and two sons survive.

—o—

The chicago office of Felton Chemical Company, in order to take care of increasing business in the Chicago territory, and to enable them to carry larger spot stocks, have doubled the size of their quarters which are located at 1200 North Ashland Avenue.

—o—

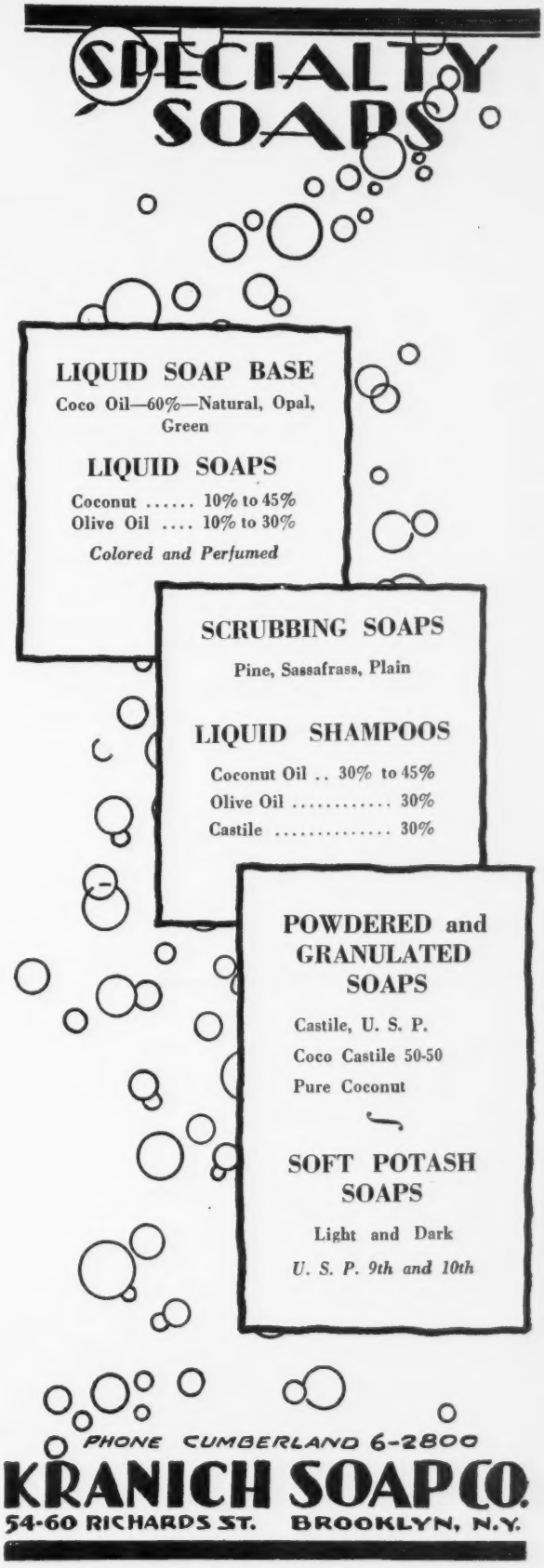
Monsanto Current Events, house organ of Monsanto Chemical Co., St. Louis, is currently appearing in new and improved form, the cover being redesigned and a second color used throughout.

—o—

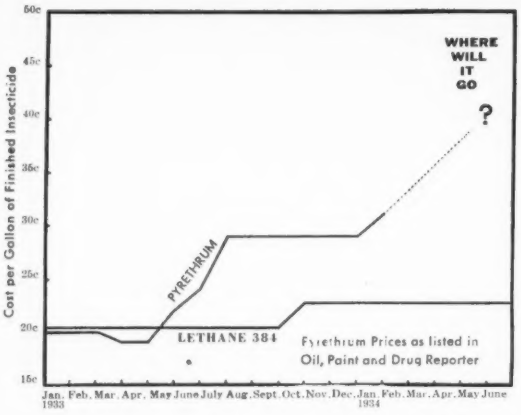
Sherwood Petroleum Company, Brooklyn, whose refinery is located at Warren, Pa., has appointed M. Perkins, 108 Massachusetts Ave., Boston, as sales representative for Massachusetts and Rhode Island.

—o—

Tobacco By-Products & Chemical Corp., Louisville, is featuring "Black Leaf 40" in its current advertising as a product useful in keeping dogs and cats away from trees and shrubbery. Cartoon type copy is being used.



• WATCH YOUR COSTS •



Curves are the thing in insecticide advertising. Watch this one. It may represent the difference between profit and loss in your business.

During the lean years of the depression LETHANE 384 made rather slow but steady progress because pyrethrum was selling at distress prices. We knew, however, that it was inevitable that a turn would come — *and it has!* Pyrethrum has already almost doubled in price whereas LETHANE 384 remains at substantially the same level.

LETHANE 384 will insure you not only a cheaper but a *better* insecticide. Profits lie that way.

RÖHM & HAAS CO., Inc.

222 West Washington Square • Philadelphia, Pa.

IT'S HERE — A NEW

FORMALDEHYDE PERFUMED SPRAY

✓ A VASTLY IMPROVED ODOR
✓ LASTS MUCH LONGER
✓ GREATER CUSTOMER SATISFACTION

LET US SEND YOU A SAMPLE AND FURTHER INFORMATION ABOUT THIS PROFIT MAKER

DISINFECTANTS
SANITARY
SPECIALTIES
ETC.

INSECTICIDES
CLEANING
COMPOUNDS
ETC.

MEMBER NATIONAL INSECTICIDE AND DISINFECTANT MFRS. ASSN. INC. 1914 INC.

THE CHEMICAL SUPPLY COMPANY

2450 CANAL ROAD **CLEVELAND, OHIO**

SERVING EXCLUSIVELY THE JOBBING TRADE

Soap Fats in 1934

(*From Page* 53)

and Vegetable Fats and Oils." In view of their close agreement, save in one instance (palm kernel oil), they may be regarded as reliable indicators of the probable diversion of fats to soap manufacturing in 1934.

TOTAL CONSUMPTION—MAJOR SOAP KETTLE FATS
(Nine Months—January to September)

	1931	1932	1933	% to Soap	
	(000's omitted)			1931	1932
Tallow, inedible	351,107	350,447	363,873	92	94
Coconut oil	433,601	417,261	437,768	62	68
Palm oil	219,648	182,417	203,775	78	71
Cottonseed oil	931,888	964,361	784,428	10	12
Animal greases (white, yellow and brown)	87,288	100,096	102,728	61	70
Fish oils (menhaden & herring)	90,698	43,132	69,177	50	53
Whale oil	62,583	46,495	35,002	95	94
Olive oil foots	44,108	31,225	37,279	98	98
Palm kernel oil	24,629	11,321	16,727	58	32
Soya bean oil	27,366	29,266	25,960	20	27
Sesame oil	42,782	9,849	11,530	24	24
Corn oil	79,615	84,082	95,349	30	23
	2,395,513	2,269,952	2,183,596		

Decline in consumption—{1932 as compared with 1931—5 per cent
{1933 " " " 1932—4 " "

COMPARATIVE WAREHOUSE STOCKS—MAJOR SOAP KETTLE FATS

	Sept. 30, 1932	Sept. 30, 1933	Percentage of Increase or decrease
	(000's omitted)		
Cottonseed oil, crude	103,100	119,580	+16
" " refined	503,199	622,799	+23
Coconut oil, crude	145,339	132,530	— 9
" " refined	13,004	16,400	+26
Corn oil, crude	8,289	15,627	+89
" " refined	7,838	10,985	+40
Soya bean oil, crude	11,002	8,120	—26
" " " refined	5,345	2,609	—51
Olive oil foots	12,492	11,248	—10
Palm kernel oil, crude	7,335	4,696	—36
" " " refined	1,115	861	—23
Palm oil	83,972	92,196	+10
Sesame oil	6,023	3,318	—45
Menhaden oil	14,473	90,791*	— 1
Herring oil	77,583		
Whale oil	87,393	50,507	—42
Tallow, inedible	174,912	232,306	+33
Animal greases, white, yellow & brown	32,484	43,870	+35

* Mainly menhaden and herring.
Source: Bureau of the Census.

Upon the enactment of the five-cent excise tax on coconut oil hinges much of importance in the market for soap fats. A reduction in the consumption of coconut oil at the soap kettle, which consumes about two-thirds of the total production today, would be inevitable. Still there are many products of the soap industry where no substitution can be made and coconut oil must continue to be an essential ingredient. If, however, the public and industrial consumers refuse to shoulder the burden of higher prices for these products, there will of necessity be a turn toward soap products made from cheaper raw materials. This suggests the possibility of a wider use of palm oil since the domestic supply of inedible fats falls far short of meeting requirements. That soapers might turn to lard is a thought negatived at once by reason of cost. Even a turn to palm oil may bring with it a later excise tax on this product, which tax as well as one on all imported oils and fats, has long been in the minds of the proponents of the tax on coconut oil.

Never before has the oil and fat situation been more complicated or the outlook more clouded. As the various and sundry legislative measures go in 1934, so will go the oil and fat markets.

economy . . .

for manufacturers of

soaps . . . . .

disinfectants . .

polishes, etc. . .

USE—

"ANDRO"
M M & R

an oil citronella substitute

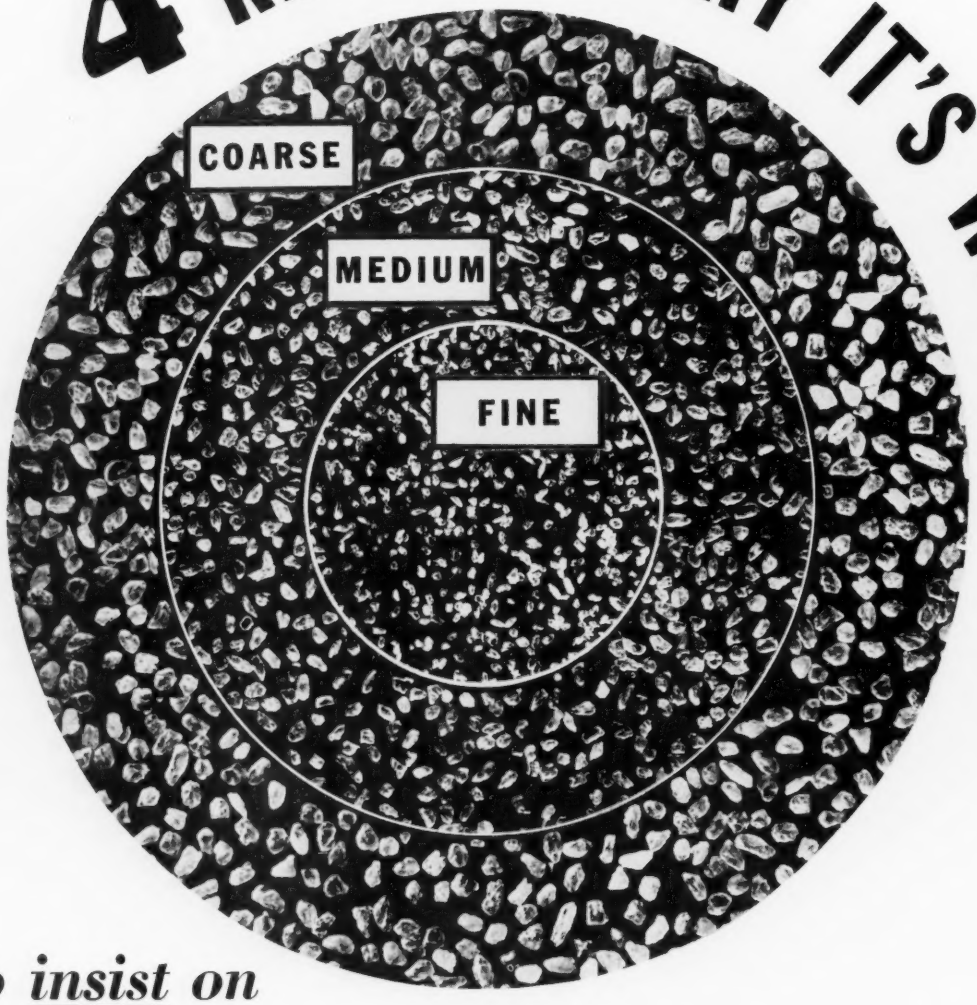
M
M&R
MAGNUS

MAGNUS, MABEE & REYNARD, INC.
32 Cliff St. New York

ESTABLISHED 1895
Essential Oils
Aromatic Chemicals *Perfume Materials*

NINETEEN QUALIFIED SALES REPRESENTATIVES ACQUAINTED WITH YOUR NEEDS VISIT PRACTICALLY EVERY CITY IN THE UNITED STATES PERIODICALLY.

4 REASONS WHY IT'S WISE



to insist on

DU PONT PARA-DICHLOROBENZENE

Here are the reasons why it's worth while to make sure your Para-Dichlorobenzene Crystals bear the name du Pont: 1—They are available for immediate delivery anywhere. 2—Can be depended on for absolute purity and uniformity at all times. 3—Backed by the name du Pont. 4—Four different quantity sizes—200, 100 lb. drums or 50 and 25 lb. pails.

DU PONT
REG. U. S. PAT. OFF.

WRITE TODAY FOR SAMPLES AND PRICES

MEMBER
NATIONAL INSECTICIDE AND DISINFECTANT MFRS. ASSN. INC. 1914 INC.

ORGANIC CHEMICALS

E. I. DU PONT DE NEMOURS & CO., INC., ORGANIC CHEMICALS DEPT., WILMINGTON, DEL.

A new specification on ball and flake naphthalene, R-N-91, has been adopted by the U. S. Federal Specifications Board, Washington, to become mandatory March 1, 1934. Copies may be obtained for five cents each from the Superintendent of Documents, U. S. Government Printing Office, Washington.

—o—

William T. Strauss, formerly sales manager and vice-president of Lehn & Fink, Inc., has been appointed executive sales manager of Blackman & Blackman, Inc., New York, pharmaceuticals.

—o—

B. A. Sample has recently taken over the firm of Lindner & Hartman, Havana, Cuba. The company imports disinfectants and allied chemical products.

—o—

Commercial Cattle Sprays

(From Page 81)

amount of odor and from that standpoint was not as satisfactory as the non-odorous phthalate.

Inasmuch as the diethyl phthalate repellent gave such satisfactory results, it seemed advisable to run tests with some of the other less volatile phthalates such as dibutyl and diamyl phthalates. These materials were therefore obtained and combined with the base material and another long series of tests were carried out both with the paper disc method and the spraying of cattle. The results of these tests clearly indicated the superiority of the diethyl phthalate combination. A rather new type of reaction was noted in the case of both flies and mosquitoes. The first effect of the phthalate combinations was to keep the flies from alighting on the animals but after a short period of time the flies settled on the spray material, but in no case did they bite the host. After having seen this indication, a great many observations were made to see whether this effect held true and it was found that the spray materials actually did allow some flies to alight after a short period of time, but the effectiveness of the repellent continued to be just as good, as far as actual biting was concerned, even though they settled on the animal for a very short period. As soon as the flies and mosquitoes made an attempt to bite the animal they were repelled by the material and left immediately. Judging from the reaction of mosquitoes, the repellent action seemed to be caused by irritation of the mouth parts or disagreeable taste. After attempting to bite through the protective coating, they brushed the mouth parts frantically with the front legs and then flew away.

Tests by the writer, using dry powdered skimmed milk in watch glasses, showed that the phthalates were not volatile repellents. Small drops of pure diethyl phthalate were applied on the surface of the skimmed milk, leaving spaces between the drops so that part of the milk was untreated. House flies were used for this test. Observations showed that the flies would stand on top of the treated areas and eat the milk in the untreated areas, but in no case were they ever feeding on the treated surfaces. This, therefore, showed a new type of repellent reaction. Insofar as the writer was able to determine, the literature did not indicate previous use of repellents acting primarily from the standpoint of disagreeable taste or mouth-part irritation.

Having found a combination spray which seemed to answer, with a high degree of satisfaction, the standards set up, it was then distributed rather widely among dairymen and farmers and at the same time extensive field tests were continued with the finished product. Our collaborators reported back that they had never used a spray material that gave as great a degree of satisfaction as a killing agent, a repellent and a material which was pleasant to use and did not taint the milk supply. Some tests were also carried on against lice and a very satisfactory kill was obtained.

In a few cases excessive amounts of the spray were applied to cattle at the peak of the hot summer season. By continuous applications of large amounts, a so-called wash-boarding or rough-

Assured.. demonstrated Quality

More than three decades have proved the quality of Reilly coal tar products which now include

CRESYLIC ACID
CRESOL
CRESOL U.S.P.
XYLENOL
TAR ACID OILS
NAPHTHALENE

for the Soap and disinfectant industry

12 PLANTS TO SERVE YOU

Reilly COAL TAR PRODUCTS

REILLY TAR AND CHEMICAL CORPORATION

MERCHANTS BANK BUILDING • • • INDIANAPOLIS, IND.

SEATTLE, WASH. • PROVO, UTAH • MINNEAPOLIS, MINN. • CHICAGO, ILL. • GRANITE CITY, ILL. • INDIANAPOLIS, IND. • DOVER, OHIO • FAIRMONT, W. VA. • NEWARK, N. J. • NORFOLK, VA. • CHATTANOOGA, TENN. • MOBILE, ALA.

PYRETHRUM—DERRIS

Amid the many claims and counterclaims made by the various pyrethrum suppliers the buyer is apt at times to be a little confused. He can keep his feet on the ground by recalling that after all pyrethrum is a product of nature and so subject to natural variation. Nature gives no supplier a monopoly of the best—all start from scratch in that respect. From that point on we have built our clientele on a basis of giving the "most kill per dollar," not on fancy catch words and exaggerated claims. The latter attract attention, but certainly add nothing to killing power.

With some suppliers derris is still in the experimental stage—not so with W. Benkert & Co. We have made a special study of this product and are well equipped to handle derris business. Ordering through us, you are assured of deliveries—and assured of securing a product of standard quality. You will also find that we have solved the milling problem. The trick is to secure an exceptionally fine powder without allowing the milling to lower toxic strength. Check up on our results by testing a sample of "Benkert-milled" derris.

W. BENKERT & COMPANY, Inc.

100 GOLD STREET — NEW YORK CITY

Detroit	*Baltimore*	*Chicago*	*St. Louis*
R. M. Stevenson	Russell Stoddard	Even M. Tysdal	Joseph Fahey
2457 Woodward Ave.	17 S. Charles St.	325 W. Huron St.	Cotton Belt Building

SOAP BASE

1. Made from highest grade specially treated materials.
2. High soap content.
3. Readily soluble.
4. Reaction neutral.
5. Maximum lather.
6. Supplied in natural, opal, wine and other desired colors—scented or unscented.

DISINFECTANTS

SOLUBLE AND EMULSION TYPES
CO-EFFICIENTS 2 TO 60

NRA MEMBER U.S. WE DO OUR PART

FERGUSSON LABORATORIES

(Div. of Alex. C. Fergusson Co.)
EST. 1855

24 OREGON AVENUE — PHILADELPHIA, PA.

Our products are guaranteed as to test and quality.

ening effect of the skin resulted. Similar treatments were carried on at the same time using nothing but water. Almost identical skin irritations were obtained with the water spray and it was therefore concluded that such irritations were probably caused by the presence of a liquid material on the skin with the hot sun burning down on the animal.

All of these sprays were applied with the continuous type sprayer which threw a rather coarse, wet spray and had a tendency to drive the spray material beyond the surface of the hair onto the skin itself. Because of the skin irritation and the possibility of improper use, a series of tests were run with different types of sprayers. In these tests a continuous sprayer was used, a common household type sprayer and an electric sprayer. The electric sprayer and the household sprayer threw a very fine mist well broken up and the spraying was done at a sufficient distance from the animal to prevent driving the spray particles onto the skin. The continuous sprayer was held at the same distance but because of the coarse spray skin wetting resulted. No irritation was obtained with any of the sprayers when a small amount of spray was applied. Using larger amounts, however, some irritation was set up with the continuous sprayer but not with the electric sprayer nor the hand sprayer.

Tests on dosages necessary to give long time protection were continued as a result of these preliminary indications and it was determined, as previously stated, that not more than 0.1 pint or approximately 40 to 45 cc. per day should be used. This would vary somewhat with the size of the animal but in general an application of approximately 20 cc. per cow, night and morning, was enough to give satisfactory protection, and if applied with the proper type of sprayer did not result in skin irritation. It is safe to assume that any type of spray material will cause skin irritation and possibly affect the health of the animal if improperly applied and if large quantities are used. This is caused by building up a coating on the skin and, of course, anything that does this reduces the rate of evaporation and increases the rate of respiration and the normal body functions are upset with their resulting ill-effect on the animal.

Limitations of Usage

IT must be remembered that a spray of this type, developed for use on animals, was not designed to be used as a general room spray. It was interesting, however, to know just how a spray of this type might compare with a product such as Flit. Toxicity tests were therefore run and it was readily determined that Mo-Lac was not as effective when atomized in the room as was a product such as Flit. This was expected because the base oil itself was less toxic than the base oil in Flit. A heavier bodied oil is also much more difficult to break up into particles of the proper size and because of these limitations the cattle spray did not give as large a kill or percentage downed in ten minutes as Flit did.

Aside from the difference in kill, this type of spray was far too greasy to atomize either in the stable or in the bottling plant or other places around the barns. It left a film on the woodwork, floors and any place with which it came in contact, and because of its much slower volatility, particularly on cold surfaces, it was objectionable. Therefore every attempt was made to educate the consumer to the realization that Mo-Lac is distinctly an animal spray and should not be used for eliminating flies in the barns. This function is more properly taken care of by the use of Flit.

There are even now a great many so-called animal sprays which are nothing but the ordinary household type of spray with a light kerosene type base oil, pyrethrum extract and some essential oil to serve as a repellent. These are still being sold as a combination spray both for killing the insect pests in the barns and for application to the animal, but judging from the results obtained in this research, you may readily see why they cannot hope to be as effective as a spray especially designed for that purpose. There are also any number of cheap sprays containing poisonous materials still being sold to the consumer.

Unfortunately, the average farmer knows little or nothing about the make-up of a spray material or what it should have in it and as a result he is left to the mercy of the salesman or the unscrupulous manufacturer who has never carried on any actual research work and who either does not know or does not care what happens after the spray is sold. From the writer's experi-

A FINISHED

TEXACO

FLY SPRAY

AT AN EXTREMELY INTERESTING PRICE

TEXACO FLY SPRAY, made from a highly refined petroleum distillate, is available, IN DRUMS, for manufacturers and distributors.

70% STANDARD PEET-GRADY KILL
MINIMUM OF RESIDUAL ODOR

Bulk deliveries of TEXACO FLY SPRAY, from anyone of our 14 shipping points on the Atlantic Seaboard assure prompt shipments and lowest costs.

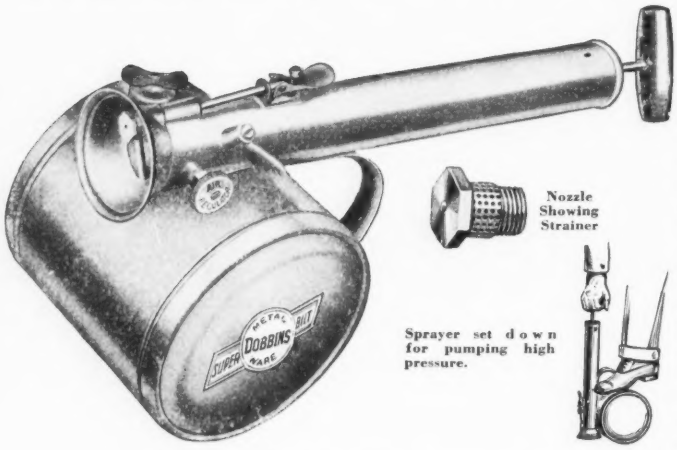
PRIVATE BRAND
PACKAGE SERVICE

To manufacturers and distributors:—The Texas Company offers its facilities and cooperation for packaging TEXACO FLY SPRAY under your private brand name. Sample dummy cans in any size, designed for lithography directly onto the tinplate or by means of printed labels, to reflect your individual requirements, will be furnished without obligation.

Inquiries pertaining to TEXACO FLY SPRAY in bulk or in packages should be addressed to:—

THE TEXAS COMPANY
DEPARTMENT F, 135 EAST 42nd STREET
NEW YORK, N. Y.

DOBBINS *high pressure* CHEMICAL SPRAYER



Nozzle Showing Strainer

Sprayer set down for pumping high pressure.

Controlled Atomization!

PERFECT atomization is essential to the effectiveness of Insecticides, Disinfectants, and Germicides.

CONTROLLED ATOMIZATION, through air regulator, is an exclusive patented feature of Dobbins high pressure Chemical Sprayers.

THE NOZZLE has a wide range of adjustment, from a forceful, penetrating spray, to a medium mist or a fine floating fog, at the will of the operator.

Write for complete catalog and price list.

We also manufacture other Sprayers, Mop Wringers, Sanitary Chemical Closets, and other metal specialties.

No. 35—3-qt. capacity

No. 30—1½-gal. capacity

DOBBINS MANUFACTURING COMPANY

NORTH ST. PAUL
MINNESOTA

PORTLAND
OREGON

YOUR SCIENTIFIC COUNSEL IN THE "NEW DEAL"

Food, Drug and Cosmetic Problems—Compliance with Official Requirements — Meeting New and Anticipated Competitions with Improved and New Products.

Over Twenty-five Years of Comprehensive Service—
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ence, it is also true that the majority of users of cattle sprays use them only as a protective measure during the actual milking time and it is then only used to quiet the cattle so that the milker may complete the milking job without being banged over the head with a tail or without having the milk bucket kicked away from him. No consideration is usually given to the long time protective effect of the spray after the animals are turned out into the field. Because of this condition, it is essential that every effort be made to show the consumer what a good animal spray should accomplish so that he may buy intelligently from reliable manufacturers.

Effect on Milk Production

IN view of some of the reports in the literature to the effect that certain types of sprays seem to reduce milk production rather than maintain it or cause an actual increase during the peak of the fly season, it was thought advisable to have some tests carried on for us by an unbiased, reliable dairy. The Dairy Department of the New Jersey Agricultural Experiment Station agreed to carry on this work for us and selected two groups of high producing Holsteins for the test. The food supply in these tests was the same throughout so that any variations from this source could be eliminated. The entire group was housed in the same room so that any differences in climatic conditions would be the same for each group.

The tests were carried on during the height of the fly season, when any protective measures should be most valuable. Milk production records were kept for each individual cow for one month on the two groups without giving them any sort of protection from the flies. The second month one group was treated daily with Mo-Lac and the second group was untreated. The milk production for each cow was again carefully recorded. Following the treatment period the production figures were again kept for both groups and during this period no spray was applied to either group. The results of this test showed rather definitely that there was a decided decrease in total production of milk per cow during the month of the test in the unsprayed group, while in the case of the sprayed group the shrinkage in milk production per cow was less. There was, of course, a normal shrinkage to be expected from month to month and this, of course, was taken into consideration.

The final results of this test showed that there was an average shrinkage per cow in the untreated group of 22 pounds of milk during the month and this is certainly a big enough difference to make it worth while to treat the animals. Aside from this actual gain in milk flow there are other angles to consider such as ease of handling milking machines, physical condition and quietness of the cattle with a resulting reduction of loss in weight and better general health of the animal.

Along with this test on actual milk production, it was thought advisable to test the milk from sprayed and unsprayed cows for butter fat content, as well as total pounds of butter fat produced during the month. Five high producing cows were therefore selected and butter fat tests were run over a period of fourteen days during which time the cows were unprotected from flies. During the following fourteen-day period, they were sprayed twice daily with Mo-Lac and the butter fat content again run for each cow. Following this, a third two-week record was made during which time the cows were again untreated. The records of this test showed very definitely that severe infestations of Stomoxys calcitrans not only reduced the total milk supply but it also reduced the percentage of butter fat in that milk at the same time.

From these results, it appeared that with the proper type of spray properly applied during the height of the fly season, it was possible to maintain a normal milk flow considerably higher than that obtained when the cows were left to the mercies of the biting flies and also possible to maintain a higher butter fat content as well. This does not agree with Freeborn's work in California but his report showed the use of an excessive amount of spray with a resulting upset in the normal health conditions of the animals. Careful observations were made during the three months' period covered by the above tests and there were no indications to show that the application of Mo-Lac in any way upset or interfered with the normal body functions.

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field, it is not to be hoped that conditions will always be such as to give entire satisfaction to the user. A repellent spray is at best only an adjunct to proper clean-up of surroundings with a resultant lowering of the insect numbers. There will be conditions under which the best of sprays will not give satisfactory results and anyone using spray materials must realize that under some conditions it is an absolute impossibility to keep the insects away by any repellent known at the present time. Under normal conditions, however, it is possible to obtain very satisfactory protection by two applications of spray per day, one in the morning and one at night. It is essential that the proper type of spraying equipment be used so that the spray is broken up into extremely fine particles and applied in such a way that these particles are deposited on the surface of the hair and not driven in to wet the skin itself. This is best done by spraying the cow from the front and working back so that the spray material is applied with the hair rather than against it. In this way there is very little tendency for the material to penetrate to the skin.

It is also essential that all parts of the animal be given this treatment particularly the flanks, the legs, the neck and the shoulders, if complete protection is to be expected. Where animals are roaming in the pastures, especially pastures with swamp areas, it is hopeless to expect that a spray material applied in the morning will last during the day after a cow has waded through mud and water and washed off such spray material. It is up to all of us as producers to properly educate cattle spray consumers in the proper methods of use for each particular product and the results they may reasonably expect to obtain with it. Until we do this it is not too much to expect that we will have to put up with price cutting and cheap competition made up primarily of low grade poisonous products.

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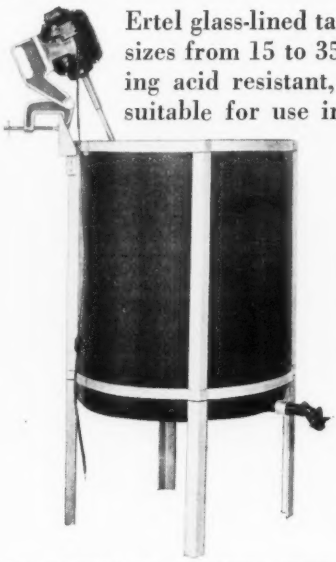

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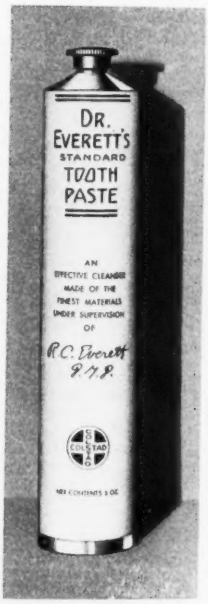

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American Cyanamid & Chemical Corp.
Columbia Alkali Co.
Dow Chemical Co.
Hooker Electrochemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Stauffer Chemical Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

Budd Aromatic Chemical Co.
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
A. C. Drury & Co.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Maybee & Reynard, Inc.
Monsanto Chemical Co.
Naugatuck Chemical Co.
Newport Chemical Works
Sherka Chemical Co.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

BULK AND PRIVATE BRAND PRODUCTS

An-Fo Manufacturing Co.
Baird & McGuire, Inc.
Chemical Supply Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Fergusson Laboratories
Fuld Bros.
Hammond Paint & Chemical Co.
Harley Soap Co.
Hull Co.
Koppers Products Co.
Kranich Soap Co.
Masury Young Co.
New York Soap Corp.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
U. S. Sanitary Specialties Corp.
White Tar Co.
Windsor Wax Co.

CHEMICALS

American Cyanamid & Chemical Corp.
Bowker Chemical Co.
Columbia Alkali Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
General Chemical Co.
Grasselli Chemical Co.
Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Mechling Bros. Chemical Co.
Monsanto Chemical Co.
Newport Chemical Works
Niagara Alkali Co.
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Stauffer Chemical Co.
Swann Chemical Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid oil, etc.)

American Cyanamid & Chemical Corp.
Baird & McGuire, Inc.
Barrett Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

CONTAINERS

Continental Can Co. (Tin Cans)
Maryland Glass Corp. (Bottles)
Metal Package Corp. (Tin Cans)
National Collapsible Tube Co. (Tubes)
Owens-Illinois Glass Co. (Bottles)

DEODORIZING BLOCK HOLDERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products, Inc.
U. S. Sanitary Specialties Corp.

ESSENTIAL OILS

Budd Aromatic Chemical Co.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
A. C. Drury & Co.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Maybee & Reynard, Inc.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

(*Continued on Page* 112)

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Specializing in Soaps, Disinfectants, Insecticides, Polishes, Etc.

FOSTER D. SNELL, INC.
Chemists-Engineers

A technical organization offering complete consulting, research, operating and management service.

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Analytical and Consulting Chemists

Members Association of Consulting Chemists and Chemical Engineers

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by PEET GRADY METHOD
(Official proposed code method) and
PYRETHRINS in PYRETHRUM FLOWERS
(by Gnadinger's Method)
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Bright Blue No. 4307

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Potash Oil Soap
Shampoo
U.S.P. Cresol Compound
Coal Tar Disinfectants
Liquid Soap
Pine Oil Soap
U.S.P. Green Soap
Shampoo Base
Pine Oil Disinfectants
Insecticides

Ask for samples of these specialty bulk products

HARLEY SOAP CO.

2852 E. Pacific St. Philadelphia

RAW MATERIAL and EQUIPMENT GUIDE

(*Continued from page* 110)

NOTE: This is a classified list of the companies which advertise regularly in *Soap*. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 114, for page numbers. *"Say you saw it in SOAP."*

MACHINERY

Blanchard Machine Co. (Soap Powder)
Ertel Engineering Co. (Liquid Handling)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
Illinois Steel Co. (Stainless Steel)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packaging Machinery)
Struthers-Wells Co. (Process)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

METAL CAPS

Anchor Cap & Closure Corp.
Crown Cork & Seal Co.
Ferdinand Gutmann & Co.

MISCELLANEOUS

Derris Inc. (Derris Products)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)

OILS AND FATS

Industrial Chemical Sales Co.
Leghorn Trading Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Theobald Annual By-Products Refinery
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.

PERFUMING COMPOUNDS

Budd Aromatic Chemical Co.
Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
A. C. Drury & Co.
Felton Chemical Corp.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Maybee & Reynard, Inc.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
Albert Verley, Inc.

PETROLEUM PRODUCTS

Anderson-Pritchard Oil Corp.
L. Sonneborn Sons
Texas Co.

PYRETHRUM PRODUCTS

(Insect Flowers, Powder and Pyr. Ext.)

An-Fo Mfg. Co. (Extract)
W. Benkert & Co.
McCormick & Co.
McLaughlin, Gormley, King Co.
S. B. Penick & Co.
John Powell & Co.

SOAP COLORS

A. C. Drury & Co.
Fezandie & Sperrle
Interstate Color Co.
Pylam Products Co.

SOAP DISPENSERS

Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Palmer Products
U. S. Sanitary Specialties Co.

SODIUM SILICATE

American Cyanamid & Chemicals Corp.
General Chemical Co.
Grasselli Chemical Co.
Mechling Bros. Chemical Co.
Philadelphia Quartz Co.
Standard Silicate Co.

SPRAYERS

Breuer Electric Mfg. Co.
Dobbins Mfg. Co.
Hudson Mfg. Co.
Lowell Sprayer Co.
D. B. Smith & Co.
U. S. Sanitary Specialties Corp.

STEEL CONTAINERS

John Trageser Steam Copper Works (Pails and Drums)
Wilson & Bennett Mfg. Co. (Pails and Drums)

TRI SODIUM PHOSPHATE

American Cyanamid & Chemicals Corp.
Bowker Chemical Co.
General Chemical Co.
Grasselli Chemical Co.
Swann Chemical Co.
Victor Chemical Works
Warner Chemical Co.

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SILICATE OF SODA

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Chemists-:-Engineers
305 Washington St.,
Brooklyn, N. Y.

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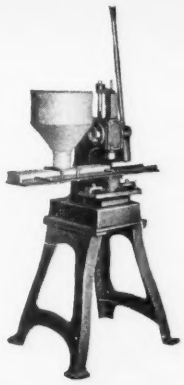
PARA PRESS

We have available a Power Para Press at an attractive price that will give 80 tons pressure to Para or Naphthalene Blocks, large or small.



PARA BLOCKS — at Low Cost!

These two practical machines are all you need to produce high quality para blocks or cakes. The hand lever press on the left has more power than cheap foot presses. Inexperienced operators can rapidly turn out fine looking blocks, at a saving of from 5% to 10% over the hot process.

The mixer, illustrated on the right, was designed for Para Block use, and will also prove of service on other products such as cleansers, bath salts, roach powders, creams, etc.

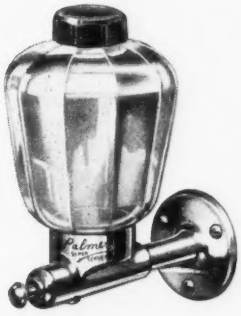
HUBER MACHINE CO.

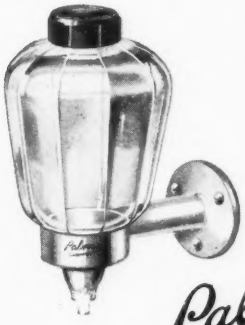
259 46th Street Brooklyn, N. Y.

Makers of Good Soap Machinery for Forty Years

PALMER SOAP DISPENSERS

The Palmer **SUPER SERVER** Dispenser (right) is priced very low but has no equal in value. Metal parts are non-corrosive, stainless, chrome alloy. One piece bracket in beautiful satin chrome-like finish. Valve parts easily removed for cleaning or replacement. Crystal glass decagon bowl (opal glass on special order)—decagon black bakelite cap. Large 1-inch opening makes filling easy—no need for removing or inverting bowl. The lowest priced push-in dispenser—yet neat, compact, durable.





The Palmer "D.C." Dispenser (dependable construction), shown at the left, is the lowest priced dispenser offered. Has simple, positive spring-controlled valve. All metal parts chrome nickel plated. Fill through large 1-inch top opening without removing or inverting bowl. Crystal glass decagon bowl (opal glass on special order)—with decagon black bakelite cap.

Palmer PRODUCTS INC
WAUKESHA, WIS.
Adjacent to Milwaukee

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PYLA-ODORS

COLOR AND PERFUME
IN A SINGLE OPERATION

BATH SALTS
LIQUID SOAPS
PARA BLOCKS
NAPHTHALENE

FAST COLORS
LASTING ODORS
MODERATE PRICES

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Mfg. Chemists, Importers, Exporters

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FLOOR WAX

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Factory: 611-617 Newark St., Hoboken, N. J.

1,000 men will be there . . . . . March 8, 1934

ONE thousand representatives of the chemical, drug, essential oil, toilet goods, soap, insecticide, disinfectant, and allied industries will be present at the Ninth Annual Dinner of the DRUG, CHEMICAL AND ALLIED TRADES to be held at the Waldorf-Astoria Hotel, New York, on Thursday evening, March 8, 1934, under the auspices of the Drug, Chemical and Allied Trades Section of the New York Board of Trade.

THIS is the outstanding trade event of the year . . . with over twenty-five leading national and local associations and trade groups cooperating . . . delegations from many middle-west and eastern cities will be present . . . an opportunity to meet everybody in one place at one time . . . the attendance last year was close to 900 . . . this year, it will be 1,000.

Everybody will be there. Come and meet them. Make up a table of ten for your company. Six-fifty per person.

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New York Board of Trade, 41 Park Row, New York

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- Jasmin
- Lavender
- Lilac
- Sweet Pea

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$3.75 to
$4.50 pound

- Carnation
- Gardenia
- Hawthorn
- Lemon
- Mignonette
- Valley Lily

Many Bouquet Types Also Available

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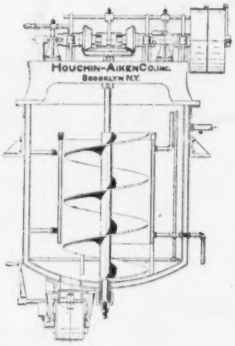
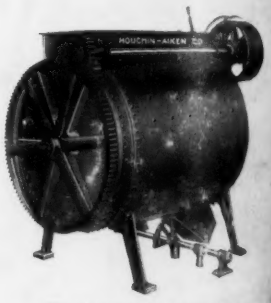


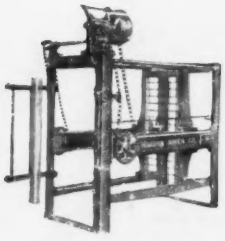
Perfection Crutcher Cross
Section View Plunger
Type Valve



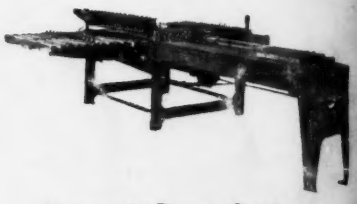
Horizontal Crutcher

Empire State
Press

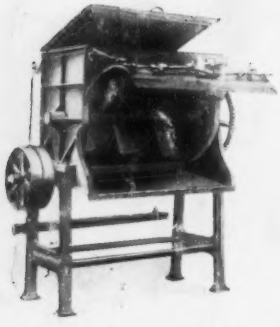
Standard
Soap Frame



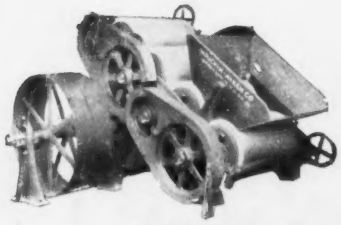
Automatic Power
Slabber



Automatic Power Cutting
Table



Ideal Amalgamator



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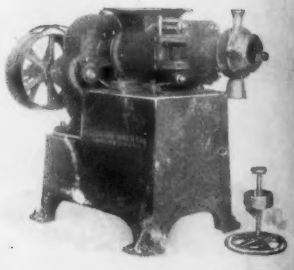

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Plodders furnished with 2½″
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